

DTC-77ES/87ES

SERVICE MANUAL

US Model

DTC-87ES

AEP Model

UK Model

DTC-77ES



Photo: DTC-87ES

| Model Name Using Similar Mechanism | New Mechanism |
|------------------------------------|---------------|
| Tape Transport Mechanism Type | DATM-51 |

SPECIFICATIONS

| | |
|------------------|--|
| Tape | Digital audio tape |
| Recording head | Rotary head |
| Recording time | Standard: 120 minutes. Long-play mode: 240 minutes (with DT-120) |
| Tape speed | Standard: 8.15 mm/s, Long play mode: 4.075 mm/s |
| Drum rotation | Standard: 2,000 rpm, Long-play mode: 1,000 rpm |
| Error correction | Double Read Solomon code |

Tape

| | |
|-------------------------------|-----------------------------|
| Track pitch | 13.6 μ m (20.4 μ m) |
| Sampling frequency | 48 kHz, 44.1 kHz, 32 kHz |
| Modulation system | 8-10 Modulation |
| Transfer rate | 2.46 Mbit/sec. |
| Number of channel | 2 channels, stereo |
| D/A conversion (Quantization) | |

Standard: 16-bit linear
Long-play mode: 12-bit
non-linear

| | |
|--------------------|---|
| Frequency response | Standard: 2-22,000 Hz (± 0.5 dB) Long-play mode: 2-14,500 Hz (± 0.5 dB) |
|--------------------|---|

| | | DTC-77ES | DTC-87ES |
|-----------------------------------|----|-------------------|------------------|
| Signal to noise ratio | SP | more than 93 dB | more than 94 dB |
| | LP | | more than 93 dB |
| Dynamic range | SP | more than 93 dB | more than 94 dB |
| | LP | | more than 93 dB |
| Total harmonic distortion (1 kHz) | SP | less than 0.0045% | less than 0.004% |
| | LP | less than 0.08% | less than 0.08% |

* SP: standard-play mode
LP: Long-play mode

Wow and flutter

Below measurable limit
($\pm 0.001\%$ W. PEAK)

— Continued on next page —



DIGITAL AUDIO TAPE DECK
SONY®

Input

| | Jack type | Impedance | Rated input level |
|-------------------|--------------|-----------|-------------------|
| LINE IN | phono jack | 47 kohms | -4 dBs |
| DIGITAL IN | phono jack | 75 ohms | 0.5 Vp-p, 20% |
| DIGITAL IN | optical jack | — | — |

Output

| | Jack type | Impedance | Rated output | Load impedance |
|-----------------|-------------------|-----------|--------------|--------------------|
| LINE OUT | phono jack | 470 ohms | -4 dBs | More than 10 kohms |
| PHONES | stereo phone jack | 220 ohms | 2.0 mW | 32 ohms |

DIGITAL OUT (optical jack): wavelength 660 nm

General

| | |
|--------------------|---|
| Power requirements | US model: 120 V AC, 60 Hz AEP model: 220/230 V AC, 50/60 Hz UK model: 240 V AC, 50/60 Hz |
| Power consumption | 37 W |
| Dimensions | US, AEP model: Approx. 470 × 135 × 350 mm (w/h/d) (18 ⁵ / ₈ × 5 ³ / ₈ × 13 ⁷ / ₈ inches) UK model: Approx. 430 × 135 × 350 mm (w/h/d) (17 × 5 ³ / ₈ × 13 ⁷ / ₈ inches) |
| Weight | US, AEP model: Approx. 11 kg (24 lb 5 oz) UK model: Approx. 10.2 kg (22 lb 8 oz) |

Remote commander (supplied)

| | |
|-----------------------|--|
| Remote control system | Infrared control |
| Power requirements | 3V DC, with two size AA (R6) batteries |
| Dimensions | Approx. 63x19x175 mm (w/h/d) (2 1/2 × 3/4 × 7 inches) |
| Weight | Approx. 130 g (4 oz) incl. batteries. |

Supplied accessories



Sony batteries SUM-3(NS) (2)
Audio connecting cords (2 phono plugs - 2 phono plugs,
stereo for line inputs and outputs) (2)
Screws (4)

Design and specifications subject to change without notice.

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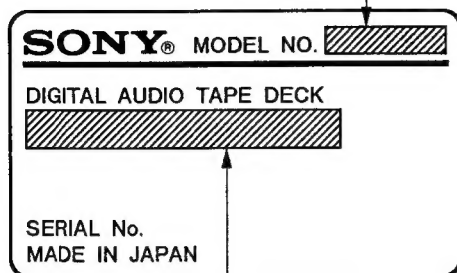
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MODEL IDENTIFICATION

— Specification Label —

DTC-77ES
DTC-87ES

US Model: AC: 120V 60Hz
 AEP Model: AC: 220 – 230V~50/60 Hz
 UK Model: AC: 240~50/60 Hz

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

ADVARSEL !

Lithiumbatteri – Eksplosjonsfare ved feilagtig håndtering.
 Udskiftning må kun ske med batteri
 af samme fabrikat og type.
 Lever det brugte batteri tilbage til leverandøren.

ADVARSEL

Lithiumbatteri – Eksplosjonsfare.
 Ved utskifting benyttes kun batteri som
 anbefalt av apparatfabrikanten.
 Brukt batteri returneres apparatleverandøren.

VARNING

Explosionsfara ved felaktigt batteribyte.
 Använd samma batterityp eller en ekvivalent
 typ som rekommenderas av apparattillverkaren.
 Kassera använt batteri enligt fabrikantens
 instruktion.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
 Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
 tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden
 mukaisesti.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

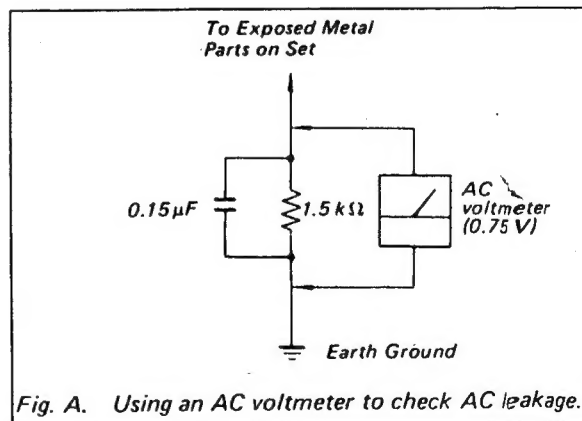


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1 GENERAL

This section is extracted from instruction manual.

Features

Serial copy management system

This unit utilizes the serial copy management system that permits digital-to-digital recording for one generation. You can record CD sound or other digital formats through a digital-to-digital connection.

4-Head, 4-DD Motor Mechanical Deck System

In addition to the standard two heads for recording and playback, this unit employs two additional heads for after-monitoring, forming a four-head system. This system allows after-monitoring of the recorded sound during recording in the same manner as with three-head cassette decks. In addition, the unit employs direct-drive motors for the drum, capstan, and reel drives, realizing silent and stable tape transport.

Date Function Automatically Records the Recording Date and Time

The year, month, day, day of the week, hour, minute and second are automatically recorded in the subcode area during recording, so that during playback you can display this data to check when the tape was recorded. This function is especially convenient when recording live performances, etc.

Three sampling frequencies

Recording/playback can be done with three sampling frequencies (48 kHz, 44.1 kHz and 32 kHz).

48 kHz: For analog and digital input signals in a standard mode.

44.1 kHz: For compact disc and pre-recorded DAT tape.

32 kHz: For analog input signals in a long-play mode.

Long Play mode

This unit can operate in a long-play mode. Analog input signals can be recorded or playback for up to four consecutive hours when the DT-120 DAT cassette tape is used. The sampling frequency will be 32 kHz in the long-play mode.

Visible cassette loading

You can view the tape operation through the lid of the cassette compartment.

Excellent sound quality

1-bit A/D converter

For the A/D converter section which converts analog input signals to digital signals, the unit employs a 1-bit A/D converter which theoretically generates no zero-cross distortion for a clear, elegant sound quality.

Pulse D/A converter

Superior playback performance is achieved through the combination of an 8X oversampling digital filter with a 1-bit D/A converter.

Independent Digital and Analog Power Sources

Since the design of the power source section is important for obtaining good sound quality, this unit incorporates two large-sized, large-capacity transformers for independently supplying power to the digital/mechanical deck sections and the analog section. This design eliminates from the source any interference introduced through the power supply.

Rich Variety of Subcode Information

This unit can record subcode information such as Start IDs, program numbers, Skip IDs, and absolute time data, enabling you to quickly locate tunes and display the playback time in the same manner as when playing compact discs.

High-Speed Search Function

Direct-drive reel motors and a software servo system enable you to locate tunes at high speeds up to 200-times the normal playback speed.

Digital fade-in/fade-out

Professional sounding fade-in/fade-out of either digital or analog signals can be accomplished by use of the FADER button.

Post edit recording of sub codes

You can record or rewrite the following sub codes after the audio signal recording has been completed.

Start ID: Signifies the beginning of a selection.

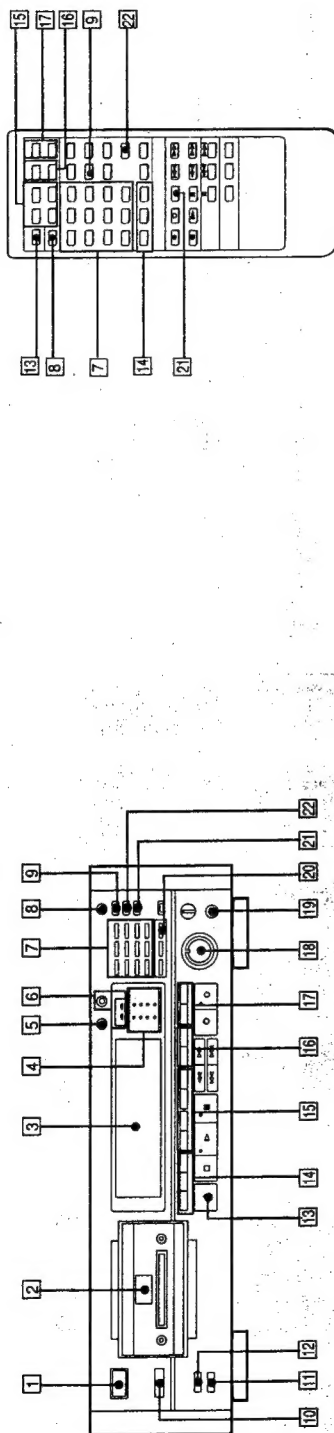
Program number: Gives a number to the selection.

Skip ID: Signifies the beginning of a portion to be skipped.

End ID: Signifies the end position of recording/playback.

Since sub codes are written on the tape separately from audio signals, the audio signals are not affected.

Location and Function of Controls

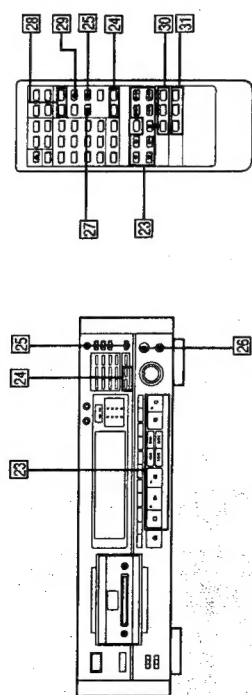


Front Panel/Remote Commander

- 1 POWER switch**
Turns the power on and off.
- 2 Cassette compartment**
Insert a cassette with the window side up and the safety tab facing you.
- 3 Display window**
- 4 ID indicators**
Display which ID button is pressed.
- 5 REC MODE selector**
Normally set to STANDARD.
When this selector is set to LONG, you can record analog input signals or digital signals with 32 kHz in the long-play mode.
- 6 REC MONITOR switch and indicators**
Switch the output signals from the LINE OUT jack, DIGITAL OUT jack and PHONES jack during recording.
In the SOURCE mode, the signal being input is output. In the TAPE mode, the signal to be recorded is output.
- 7 Music select buttons**
Numeric buttons (0-9): Designate the desired program number to be played back before starting playback.
SELECT: Use to cancel the program number which has been mistakenly entered.
MUSIC SCAN: Use this feature to listen to the beginning of each selection successively.
- 8 DISPLAY MODE button**
Change the display mode. (Refer to page 10.)
- 9 REPEAT button**
Press to play a desired portion repeatedly. Each time you press the button, the indication changes as follows:
REPEAT 1 → REPEAT ALL → Nothing
- 10 Remote sensor**
Receives the signal from the Remote Commander.
- 11 INPUT selector**
Set according to the signal to be recorded.
ANALOG: For recording from the equipment connected to the LINE IN jacks.
OPTICAL: For recording from the equipment connected to the DIGITAL IN (OPTICAL) jack.
COAXIAL: For recording from the equipment connected to the DIGITAL IN (COAXIAL) jack.
- 12 TIMER switch**
Normally set to OFF. Use start recording or playback at the desired time using a commercially available audio timer.
- 13 OPEN/CLOSE button**
Press when inserting or removing the cassette.

- 14 COUNTER buttons**
MODE: Selects the counter display in the display window among the linear counter (tape running time), absolute time, elapsed time of the selection, and total remaining time of tape. Each time you press the button, the display changes sequentially.
RESET: Resets the linear counter to "00:00".
MEMORY: Press to search the position of the tape you want to listen to (Memory play, Memory stop).
- 15 START ID buttons**
AUTO: Press to turn on and off the AUTO indicator. When the AUTO indicator is lit, the start ID will automatically be written during recording. When the AUTO indicator is not lit, press START ID WRITE at the point where you want to write a start ID.
WRITE: Press to write the start ID at the desired point during recording or playback.
ERASE: Press to erase a start ID. When a start ID and a program number are written on the tape, both codes are simultaneously erased by pressing this button.
RENUMBER: Press to renumber all programs on the tape. When only the start IDs are written, pressing this button will insert the proper program numbers beginning with "1". The tape will rewind and start from the beginning to accomplish this function.
- 16 SKIP ID buttons**
WRITE: Press at the beginning of the portion you may wish to skip later. A skip ID will be written from the point where you pressed this button.
- 17 END ID buttons**
WRITE: Press to write the ID signifying the end of playback or recording.
ERASE: Press to erase the end ID.
- 18 REC LEVEL (recording level) controls**
Adjust the recording level for the analog input signals. The outer knob controls the L (left) channel level and the inner knob the R (right) channel level. The knobs can be adjusted together.
When recording digital signals, it is not necessary to adjust the recording level.
- 19 PHONES jack**
- 20 CLOCK SET button**
Press to adjust the time of the clock built in this unit. In this mode, the MUSIC SCAN button and the 0 button function as the + and - buttons respectively.
- 21 FADER button**
Press to fade in or fade out during recording or playback.
- 22 SKIP PLAY button**
Press to activate the skip ID code function. The portion of the tape previously marked will be skipped.

Location and Function of Controls



Front Panel/Remote Commander

23 Tape operating buttons

- (stop): Press to stop recording or playback.
- ▶ (play): Press to play back the tape.
- (recording): Press to start recording. After pressing this button, press II or ▶.
- II (pause): Press to stop for a moment during recording or playback. To restart recording or playback, press this button again or press ▶.
- ▶ (fast forward): If the unit is left in the pause mode for about 10 minutes, it will automatically be released and the deck will enter the stop mode. To restart recording or playback from the stop mode, press REC or ▶ respectively.
- (record muting): Inserts a sound-muted portion (space).
- ◀◀ (AMS): Press to locate the beginning of the selection during the playback.
- ◀ (rewind/review, fast-forward/cue): In the stop mode, press to rewind/fast-forward the tape. During playback, press to rewind or fast-forward the tape while listening to the sound.

24 DATE button

- RECORDED:** Press to display the recording day of the tape being played.
- PRESENT:** Press to display the current time.
- Each time the RECORDED or PRESENT buttons are pressed, year, month, and day display or hour, minute and second display is switched respectively.

25 MARGIN RESET button

- Press to reset the margin of peak level.

26 PHONE LEVEL control

- The PHONE LEVEL control adjusts the headphones volume level.

27 TIME SEARCH button

- Press to search the position of the tape you want to listen to by giving the time elapsed from the beginning of the tape.

28 RMS play buttons

- ENTER:** To program the selections in a desired order, press this button after pressing the numeric buttons.
- CHECK:** Press to check the programmed contents.

29 REPEAT A→B button

- Press to play back a desired portion repeatedly.

30 CD operation buttons

- Operative only for the Sony CD player equipped with a Remote Commander.
- II (pause):** Sets the CD player in the pause mode during playback. Press again to release pause. If pressed twice when the player is in the stop mode, playback starts.
- ◀◀▶▶ (AMS):** Press to locate the desired selection on the Compact Disc during playback or in the stop mode.

31 CD SYNCHRO (CD synchronized recording) buttons

- (The playback of the CD player equipped with a Remote Commander and the recording of the DAT deck can be performed simultaneously.)
- STANDBY:** Press to set the unit in the record-standby mode.
- START:** Press to start recording of the DAT deck and then playback of the CD player.
- STOP:** Press to stop the DAT deck recording and the CD player playback.

Remote Commander Operation

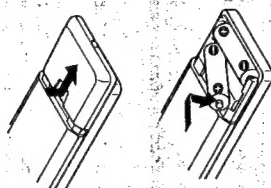
Each button on the Remote Commander functions in the same way as those having the same name on the front panel. However, the following operations cannot be performed using the Remote Commander. Use the front panel controls instead.

- Turning the power on and off
- Selecting digital(optical/coaxial)/analog input source
- Adjust the recording level/headphones level
- Setting the timer recording/playback
- Selecting the record mode (standard or long)
- Setting the REC MONITOR switch.

The following operations can be performed only with the Remote Commander.

- Activating CD synchronized recording using a Sony CD player and controlling the CD player
- Locating the desired selection on the Compact Disc or setting the CD player in the pause mode (possible only when a Sony CD player is used.)
- Repeat play (A→B)
- "RMS" play
- "RMS" Random Music Sensor
- Time search (When locating the desired position of the tape by giving the time elapsed from the beginning of the tape.

Installing Batteries



Insert two size AA (R6) batteries with correct polarity, and close the lid.

Notes on remote control

- Do not expose the remote sensor on the deck to strong light such as direct sunlight, lighting apparatus, etc.
- Do not place any obstructions between the Remote Commander and the remote sensor, or else operations will not be performed correctly.
- The controllable range is limited. Point the Remote Commander directly at the remote sensor on the deck.
- When remote control operation distance becomes shorter, the batteries are weak. Replace both batteries with new ones.

To avoid battery leakage

When the commander will not be used for a long period of time, remove the batteries to avoid damage caused by battery leakage and corrosion.

Battery life

About half a year of normal operation can be expected when using the Sony SUM-3 (NS) batteries.

Display Window

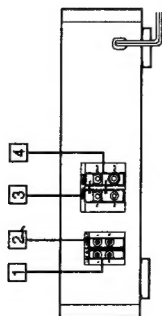
DATE indicator
Lights when pressing the **RECORDED** to display the recording day of the tape being played. Lights off when pressing **PRESENT** button to display the current time.

-
- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
- 21 22 23 24
- dB 00 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000 1010 1020 1030 1040 1050 1060 1070 1080 1090 1100 1110 1120 1130 1140 1150 1160 1170 1180 1190 1200 1210 1220 1230 1240 1250 1260 1270 1280 1290 1300 1310 1320 1330 1340 1350 1360 1370 1380 1390 1400 1410 1420 1430 1440 1450 1460 1470 1480 1490 1500 1510 1520 1530 1540 1550 1560 1570 1580 1590 1600 1610 1620 1630 1640 1650 1660 1670 1680 1690 1700 1710 1720 1730 1740 1750 1760 1770 1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030 2040 2050 2060 2070 2080 2090 2100 2110 2120 2130 2140 2150 2160 2170 2180 2190 2200 2210 2220 2230 2240 2250 2260 2270 2280 2290 2300 2310 2320 2330 2340 2350 2360 2370 2380 2390 2400 2410 2420 2430 2440 2450 2460 2470 2480 2490 2500 2510 2520 2530 2540 2550 2560 2570 2580 2590 2600 2610 2620 2630 2640 2650 2660 2670 2680 2690 2700 2710 2720 2730 2740 2750 2760 2770 2780 2790 2800 2810 2820 2830 2840 2850 2860 2870 2880 2890 2900 2910 2920 2930 2940 2950 2960 2970 2980 2990 3000 3010 3020 3030 3040 3050 3060 3070 3080 3090 3100 3110 3120 3130 3140 3150 3160 3170 3180 3190 3200 3210 3220 3230 3240 3250 3260 3270 3280 3290 3300 3310 3320 3330 3340 3350 3360 3370 3380 3390 3400 3410 3420 3430 3440 3450 3460 3470 3480 3490 3500 3510 3520 3530 3540 3550 3560 3570 3580 3590 3600 3610 3620 3630 3640 3650 3660 3670 3680 3690 3700 3710 3720 3730 3740 3750 3760 3770 3780 3790 3800 3810 3820 3830 3840 3850 3860 3870 3880 3890 3900 3910 3920 3930 3940 3950 3960 3970 3980 3990 4000 4010 4020 4030 4040 4050 4060 4070 4080 4090 4100 4110 4120 4130 4140 4150 4160 4170 4180 4190 4200 4210 4220 4230 4240 4250 4260 4270 4280 4290 4300 4310 4320 4330 4340 4350 4360 4370 4380 4390 4400 4410 4420 4430 4440 4450 4460 4470 4480 4490 4500 4510 4520 4530 4540 4550 4560 4570 4580 4590 4600 4610 4620 4630 4640 4650 4660 4670 4680 4690 4700 4710 4720 4730 4740 4750 4760 4770 4780 4790 4800 4810 4820 4830 4840 4850 4860 4870 4880 4890 4900 4910 4920 4930 4940 4950 4960 4970 4980 4990 5000 5010 5020 5030 5040 5050 5060 5070 5080 5090 5100 5110 5120 5130 5140 5150 5160 5170 5180 5190 5200 5210 5220 5230 5240 5250 5260 5270 5280 5290 5300 5310 5320 5330 5340 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 5460 5470 5480 5490 5500 5510 5520 5530 5540 5550 5560 5570 5580 5590 5600 5610 5620 5630 5640 5650 5660 5670 5680 5690 5700 5710 5720 5730 5740 5750 5760 5770 5780 5790 5800 5810 5820 5830 5840 5850 5860 5870 5880 5890 5900 5910 5920 5930 5940 5950 5960 5970 5980 5990 6000 6010 6020 6030 6040 6050 6060 6070 6080 6090 6100 6110 6120 6130 6140 6150 6160 6170 6180 6190 6200 6210 6220 6230 6240 6250 6260 6270 6280 6290 6300 6310 6320 6330 6340 6350 6360 6370 6380 6390 6400 6410 6420 6430 6440 6450 6460 6470 6480 6490 6500 6510 6520 6530 6540 6550 6560 6570 6580 6590 6600 6610 6620 6630 6640 6650 6660 6670 6680 6690 6700 6710 6720 6730 6740 6750 6760 6770 6780 6790 6800 6810 6820 6830 6840 6850 6860 6870 6880 6890 6900 6910 6920 6930 6940 6950 6960 6970 6980 6990 7000 7010 7020 7030 7040 7050 7060 7070 7080 7090 7100 7110 7120 7130 7140 7150 7160 7170 7180 7190 7200 7210 7220 7230 7240 7250 7260 7270 7280 7290 7300 7310 7320 7330 7340 7350 7360 7370 7380 7390 7400 7410 7420 7430 7440 7450 7460 7470 7480 7490 7500 7510 7520 7530 7540 7550 7560 7570 7580 7590 7600 7610 7620 7630 7640 7650 7660 7670 7680 7690 7700 7710 7720 7730 7740 7750 7760 7770 7780 7790 7800 7810 7820 7830 7840 7850 7860

- 7-

Connections

Rear Panel Jacks



1 LINE IN (line input) jacks (phone jack)

Connect to the recording outputs of an amplifier. Signals supplied by the amplifier can be recorded using the sampling frequency of 48 kHz in the normal play mode or 32 kHz in the long play mode.

2 LINE OUT (line output) jacks (phono jack)

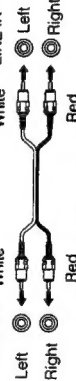

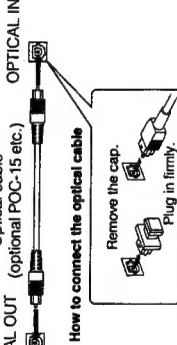
Connect to the DAT or tape inputs of an amplifier. The playback signal of this deck will be output.

**3 COAXIAL/OPTICAL DIGITAL IN (digital input) jacks
(coaxial phono jack/optical jack)**

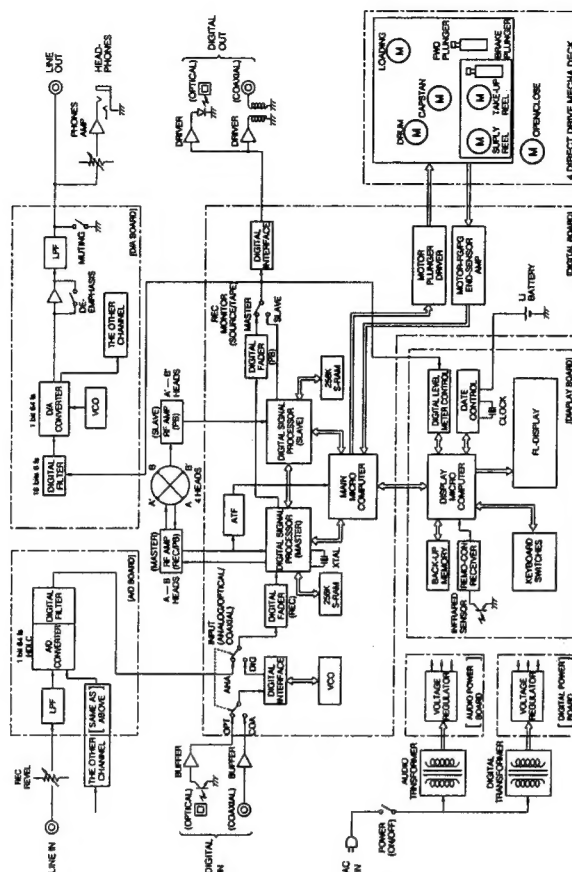
Connect to the digital outputs of an amplifier having a built-in D/A converter or other digital source, such as a CD player for digital-to-digital recording.

Connecting Cord

There are following three types of connecting jacks at the rear of the deck. Each type of jack requires a different type of connecting cord.

| | |
|--|--|
| <p>LINE IN/OUT (analog input/output) jacks</p> | <p>Audio signal connecting cord (supplied, or optional RK-CS05KS etc.)</p>  <p>LINE OUT White</p> <p>Left Right</p> <p>Right Red</p> |
| <p>COAXIAL IN/OUT (digital input/output) jacks</p> | <p>Coaxial digital connecting cord (optional VMC-1ES etc.)</p>  <p>COAXIAL OUT</p> <p>COAXIAL IN</p> |
| <p>OPTICAL IN/OUT (optical transmission digital input/output) jacks</p> | <p>Optical cable (optional POC-15 etc.)</p>  <p>OPTICAL OUT</p> <p>OPTICAL IN</p> <p>How to connect the optical cable</p> <p>Remove the cap.</p> <p>Plug in firmly.</p> |

Block Diagram



Time Setting

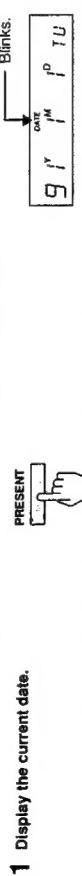
This unit employs a built-in clock to keep track of the current date and time. Once you set the date and time, this information will be recorded on the tape along with the audio signal during recording. This function is very convenient because it allows you to check when the tape was recorded when playing the tape later.

Setting the date and time

Example: Setting the clock to 10:30:00 AM, July 4, 1991 (Thursday)

Setting the date

1 Display the current date.



2 Set the year.



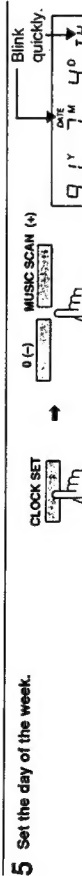
3 Set the month.



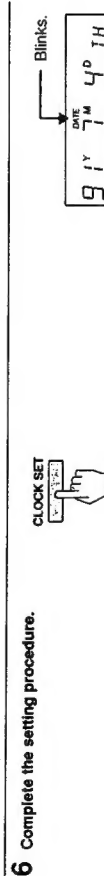
4 Set the day.



5 Set the day of the week.



6 Complete the setting procedure.



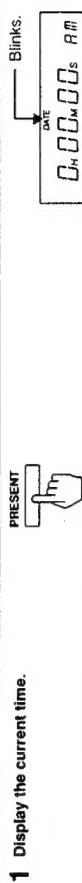
Note: In the time setting description, US model is used as an example.

On AEP, UK model 24 hours clock is used.

Time Setting

Setting the time

1 Display the current time.



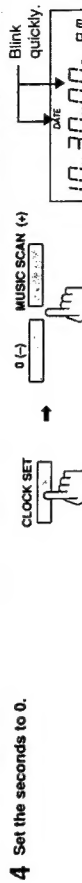
2 Set the hour.



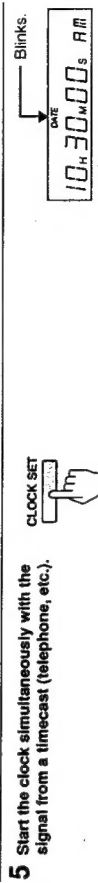
3 Set the minutes.



4 Set the seconds to 0.



5 Start the clock simultaneously with the signal from a timecast (telephone, etc.).



To confirm the date or time

Press the PRESENT button to display the date or time. One press displays the date and two presses displays the time. To return to the original counter display, press the COUNTER button.

Time display

The time is displayed in 12-hour format.

Midnight and noon are displayed as follows:

Midnight: AM 12:00

Noon: PM 12:00

Built-in clock

This unit's built-in clock operates using a quartz oscillator, and time variations caused by changes in temperature, etc., may accumulate. For precise recording of hour, minute, and second data by the built-in date function, it is recommended that you set the clock once a week.

Precautions when setting the time

- Set the time while the tape is stopped.
- Although this unit's clock automatically adjusts for leap years and long and short months, do not enter a date which does not exist.

A The day of the week and AM/PM are displayed as follows.

| | | |
|-----------|----|----|
| Sunday | SU | AM |
| Monday | MO | PM |
| Tuesday | TU | |
| Wednesday | WE | |
| Thursday | TH | |
| Friday | FR | |
| Saturday | SA | |

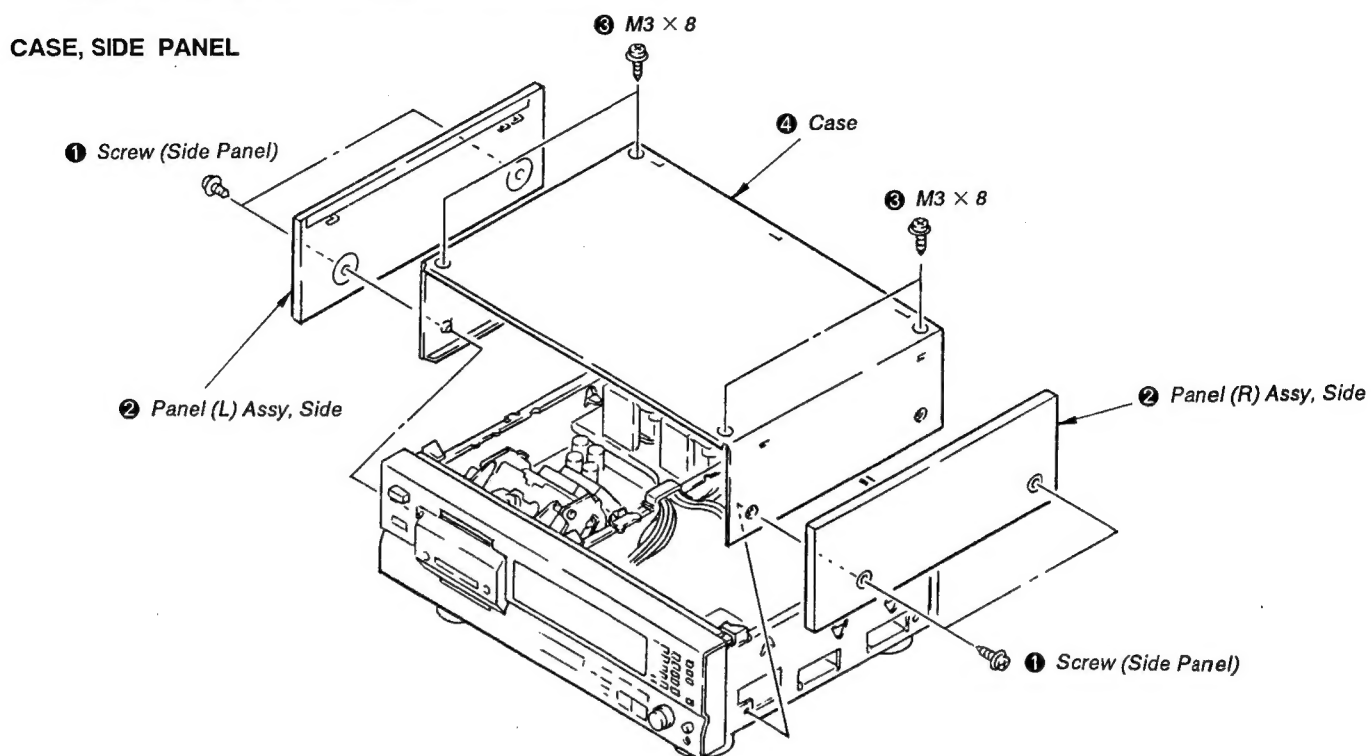
Note

This unit uses a back-up battery to keep the clock running when the power is turned off. The life of the battery under normal use is approximately five years. When the battery starts to run down, the clock will stop operating normally. When this occurs, have the battery replaced at your dealer or nearest Sony Service Center (a battery replacement fee is required).

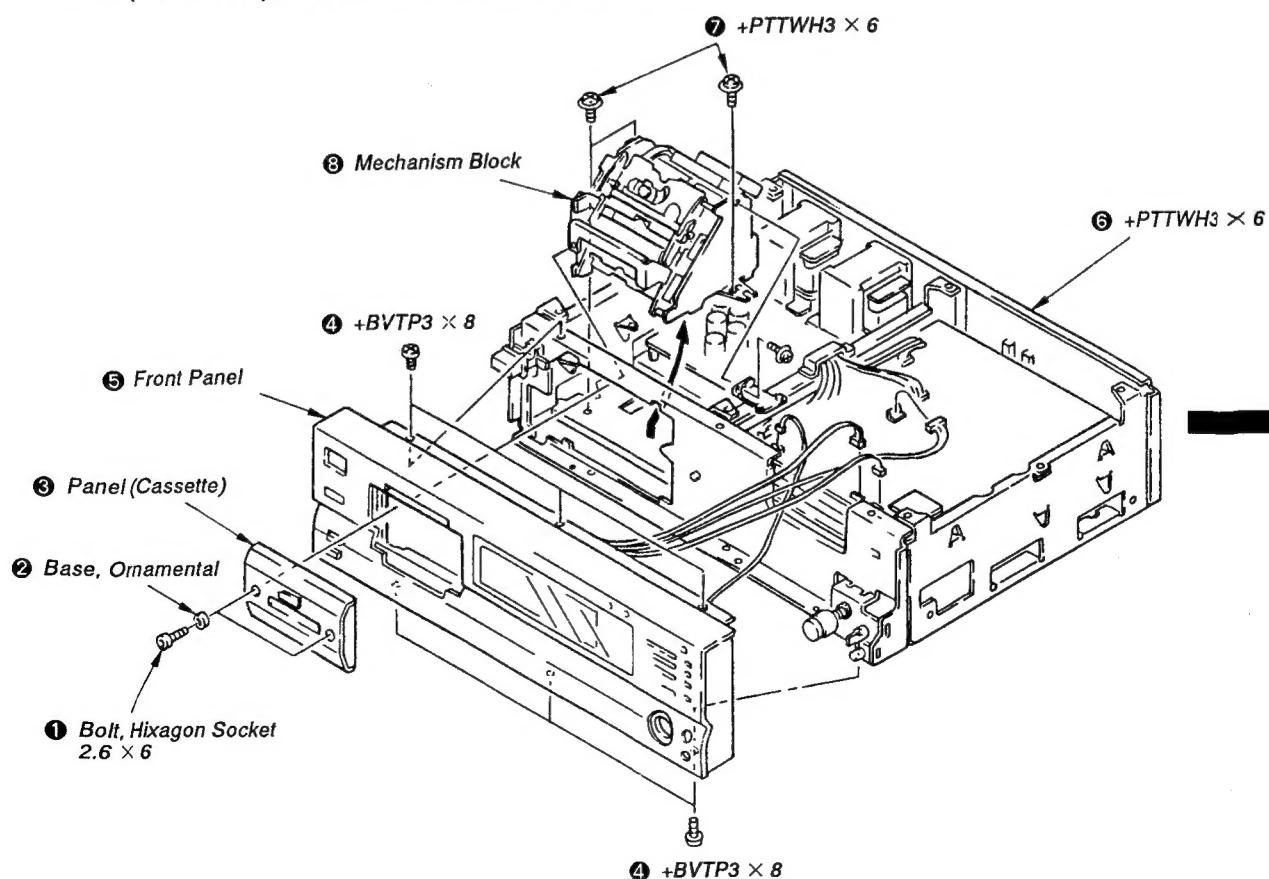
SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

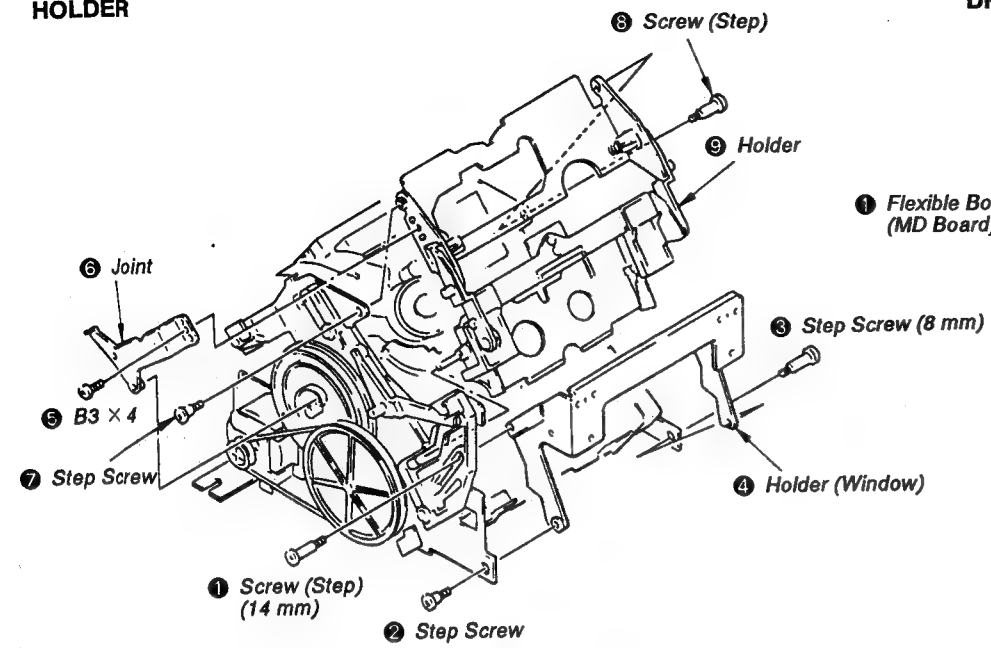
CASE, SIDE PANEL



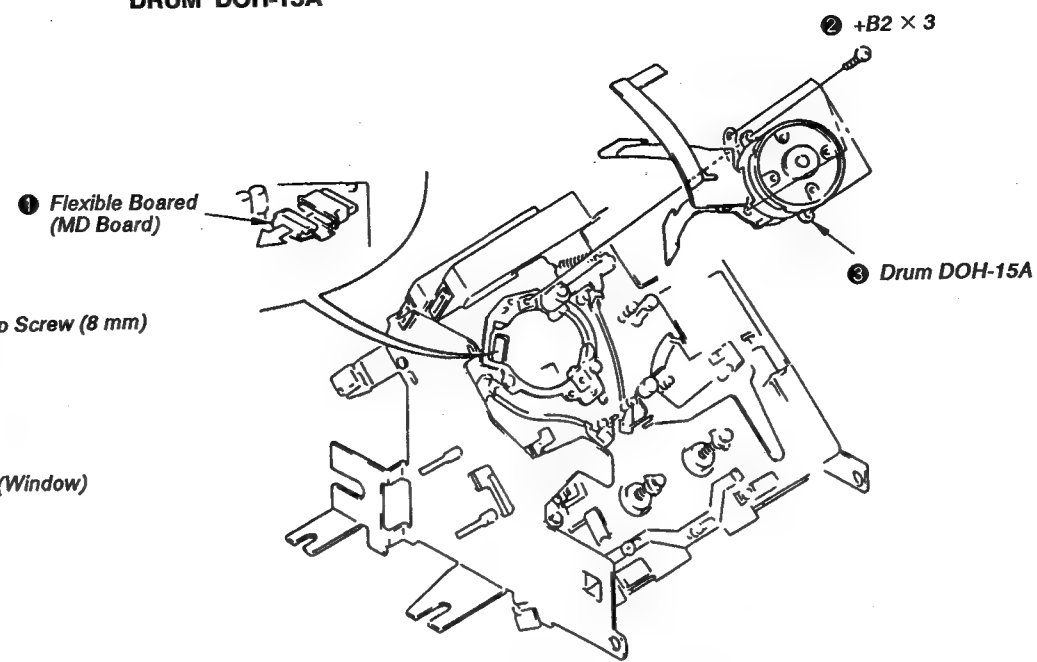
PANEL (CASSETTE), FRONT PANEL, MECHANISM BLOCK



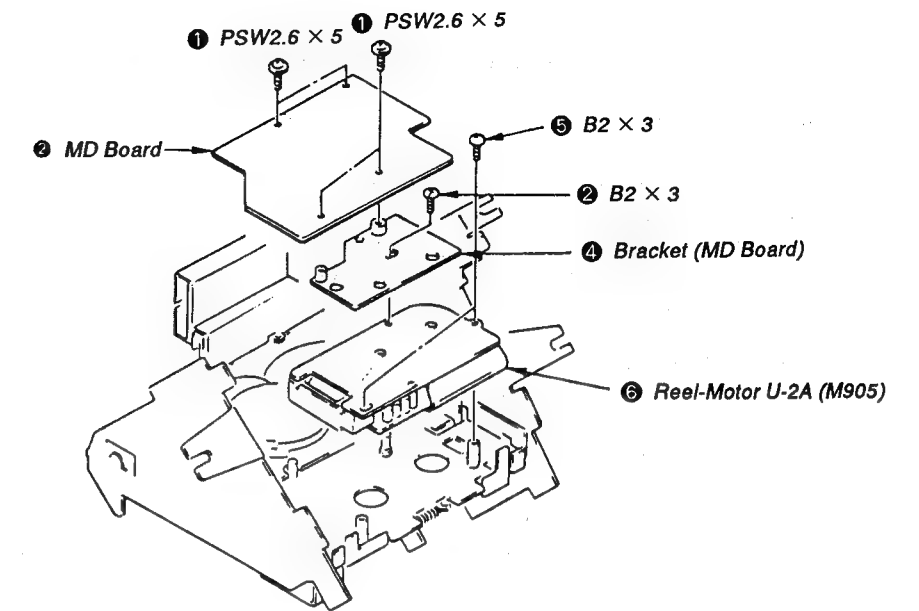
HOLDER



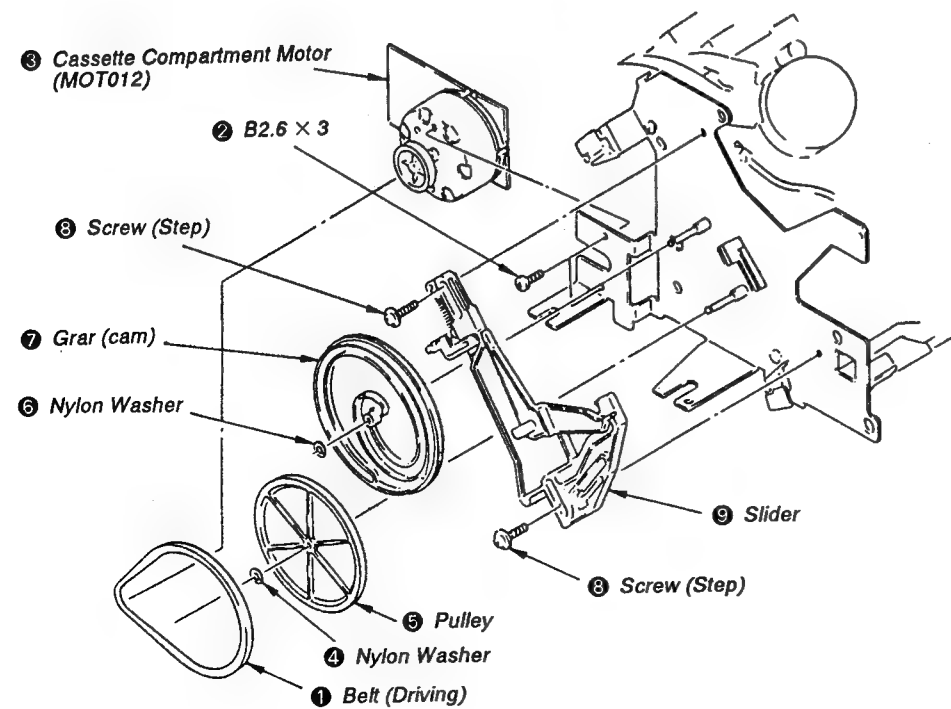
DRUM DOH-15A



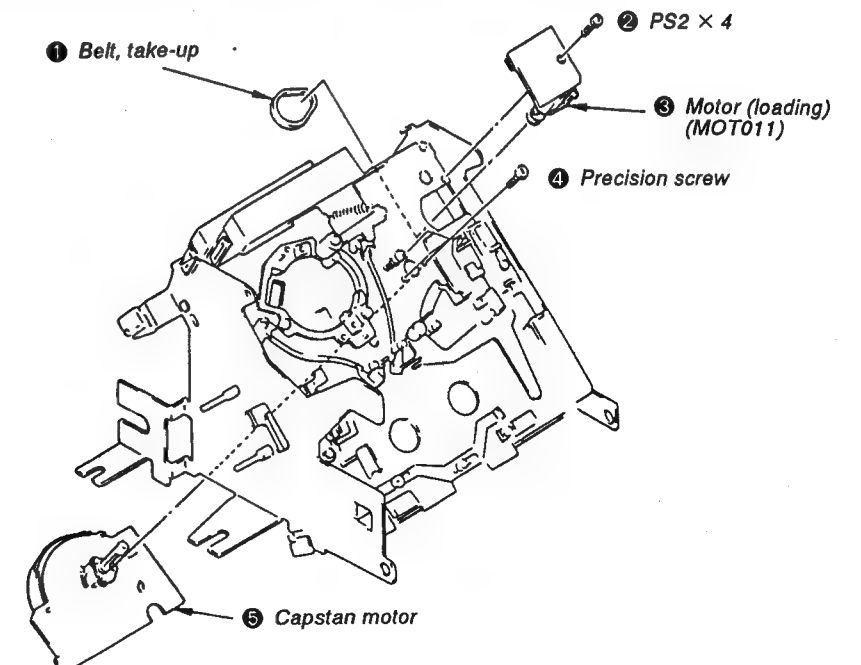
MD BOARD, REEL MOTOR U2-A (M905)



CASSETTE COMPARTMENT MOTOR (MOTO12), PULLEY, GEAR (CAM), SLIDER



LOADING MOTOR (MOTO11), CAPSTAN MOTOR U-17A (M902)



SECTION 3 ADJUSTMENTS

Notes When Making Adjustments

- Adjustments should be performed in the order listed.
- Use the following test tapes :

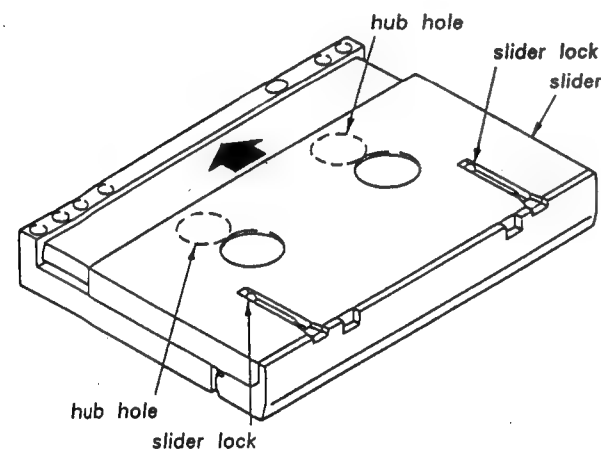
| | |
|------------------------------|-----------|
| TY-7111 (8-909-812-00) | Level |
| TY-7252 (8-909-822-00) | Tracking |
| TY-7551 (8-909-814-00) | Functions |
| TY-30B (8-892-358-00) | Blank |

Use the following torque meter :
TW-7131 (8-909-708-71) FWD

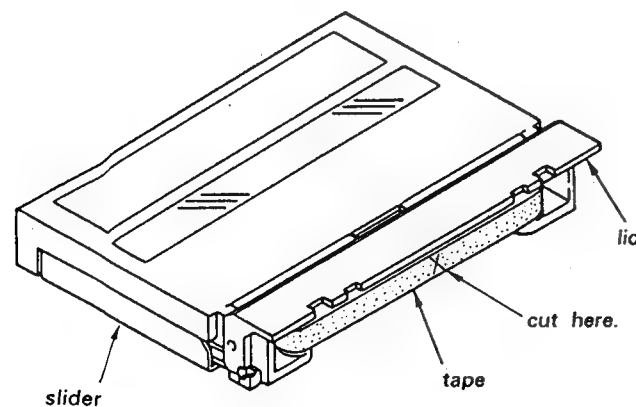
- Switches and controls should be set as follows unless otherwise specified.

| | |
|------------------------|---------|
| TIMER switch : | OFF |
| REC MODE switch : | LONG |
| INPUT switch : | COAXIAL |
| REC LEVEL control : | Min. |
| PHONES LEVEL control : | Min. |

- Creating an end sensor cassette
 - Press the tape slider lock and move the slider in the direction indicated by the arrow.

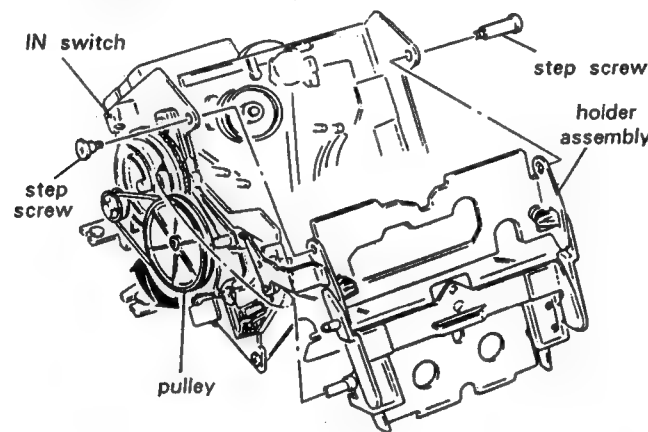


- Open the lid and cut the tape.



- Turn the hubs until the tape is completely inside the cassette (both T and S sides). The end sensor cassette for end sensor adjustment is now ready for use.

- Be careful not to move RV951 and RV952 on the RF AMP board in the mechanism assembly.
- To adjust the tape path and guides, remove the holder assembly as shown in the diagram and use the DAT holder jig (J-2000-002-A). This will make it easier to perform adjustments.
 - First turning the pulley counterclockwise to put it in loading out status will make removal and reattachment of the holder assembly easier.
 - To perform adjustments, turn the pulley clockwise to put it in loading in status, load the cassette tape and set the IN switch to the ON position.



- Test mode

To set to the test mode, short-circuit between Pin ⑦ (XTEST) and Pin ⑥ (GND) of CN553 on the digital board. At this time, "TEST" letters turn on red on the fluorescent display. And at the same time, turning on the date on the fluorescent display, it becomes to the torque measurement mode.

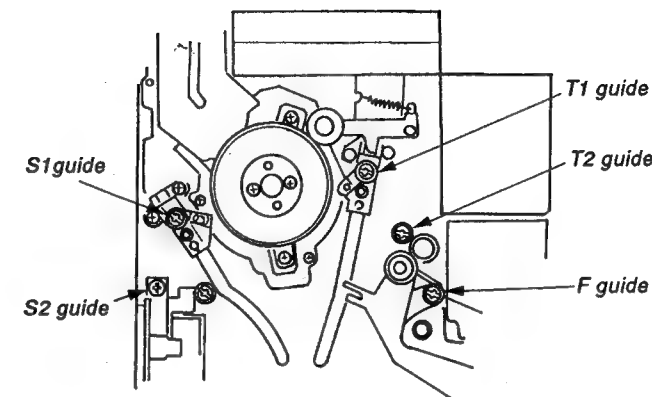
Test mode (Short-circuit between XTEST and GND)

- Turn off the date on the fluorescent display. (Press COUNTER MODE key)
 - S2, T2, F guides Adjustment
 - End Sensor Adjustment
 - Tape Path Adjustment
 - DPG Adjustment
 - ATF Pilot Adjustment
- Turn on the date on the fluorescent display. (Press DATE-RECORD key)
 - FWD Torque Adjustment
 - FWD Back-Tension Adjustment

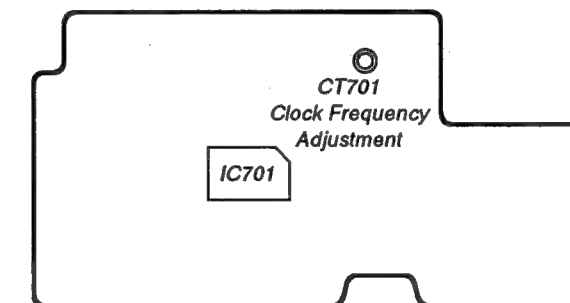
Torque Measurement Mode

To release the test mode, release the short-circuit point between XTEST and GND, After the adjustments, be sure to release the test mode.

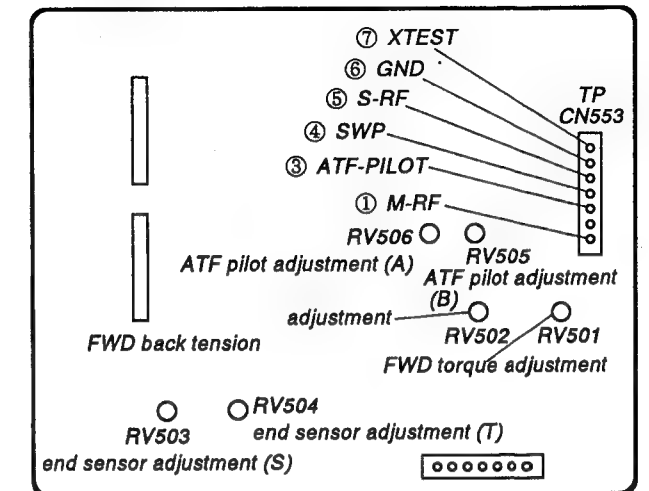
Adjust Parts Location — Mechanism assembly —



— Control Board — — SIDE A —



— Digital Board — — SIDE B —



3-1. MECHANICAL ADJUSTMENTS

After replacing the drum or related parts, adjust the S2, T2 and F guides and then perform the tape path ($\times 1.5$ FWD mode) fine adjustment of electrical adjustments.

S2, T2 Guide/F Guide Adjustment

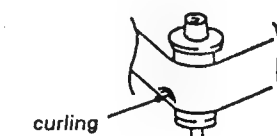
Adjustment Procedure :

- Put the set into the test mode and load test tape TY-7252 (8-909-822-00).
- Set the REC MODE switch to STANDARD (ATF: OFF) and press the AMS key.

Confirm there is no curling at the upper or lower flange of S2, T2, or F guides.

When there is curling, return higher S2, T2, F guides and adjust by screwing in.

* Curling :



"Curling" refers to distortion on the tape during FWD operation. It can be identified by directing a light at the tape.

3-2. ELECTRICAL ADJUSTMENTS

End Sensor Adjustment

Perform the following adjustment when the holder has been removed or part of the mechanism deck section replaced.

Adjustment Procedure:

1. Connect an oscilloscope to CN554 pin ⑤ (SEND) (supply side) and CN554 pin ⑥ (TEND) (take-up side) on the digital board.
2. Load an end sensor cassette and put the set into the STOP (■) mode.
3. Adjust RV503 (supply side) and RV504 (take-up side) on the main board so that the oscilloscope waveform p-p value is 1.2 Vp-p.



Adjustment Point: digital board

FWD Torque Adjustment

Adjustment Procedure :

1. Put the set into the test mode and load the FWD torque meter TW-7131 (8-909-708-71).
2. Put the set into the PLAY (▶) mode.
3. Adjust RV501 so that the FWD torque value (take-up side rewinding torque) is between 10 – 15 g·cm (0.14 – 0.21 oz·inch).
4. Confirm that the value indicated by the torque meter is maintained for one full cycle.

Adjustment Point: digital board

FWD Back Tension Check

Check Procedure :

1. Put the set into the test mode and load the FWD torque meter TW-7131 (8-909-708-71).
2. Put the set into the PLAY (▶) mode.
3. Adjust RV502 so that the back tension (supply side) is between 8 – 9 g·cm (0.11 – 0.13 oz·inch).
4. Confirm that the value indicated by the torque meter is maintained for one full cycle.

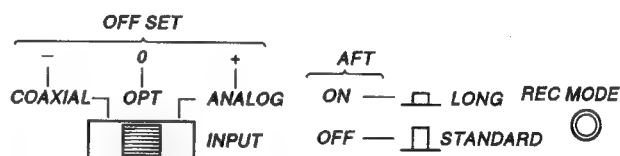
Tape Path Fine Adjustment (× 1.5 FWD Mode)

Perform the following adjustment when the drum has been replaced.

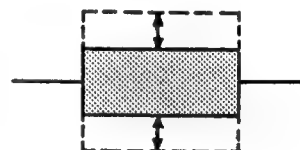
Adjustment Procedure:

1. Connect an oscilloscope CH-1 to CN553 pin ① (M-PF) and CH-2 to CN553 pin ④ (SWP) on the digital board.
2. Put the set into the test mode and load test tape TY-7252 (8-909-822-00).
3. Press the AMS (▶▶) key.

Each part of switches on Test Mode.

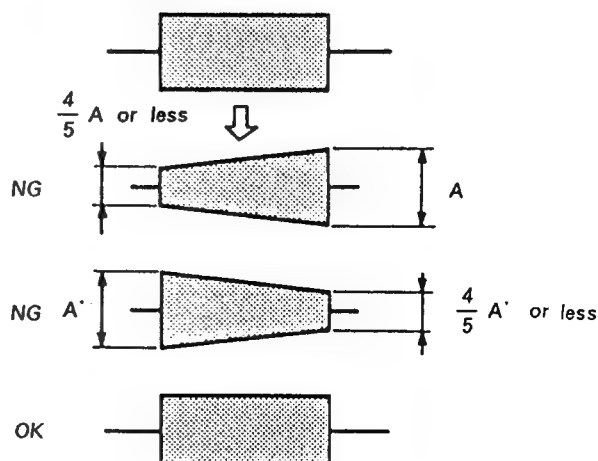


4. With the REC MODE switch set to STANDARD (ATF: OFF) and the INPUT switch set to ANALOG or COAXIAL (OFFSET: + or -), fine adjust the S1 and T1 guides so that the oscilloscope RF signal waveform remains the same when high-low is repeated.

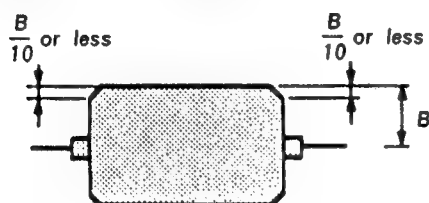


* Finish the adjustment by screwing in, and when there is curling at the upper or lower flange of S2, T2, or F guides, perform the guide adjustment.

5. Check the RF signal waveform with the REC MODE switch set to LONG (ATF: ON) and the INPUT switch set to ANALOG or COAXIAL (OFFSET: + or -).



6. Check the RF signal waveform with the REC MODE switch set to LONG (ATF: ON) and the INPUT switch set to OPTICAL (OFFSET: 0)
 - (1) Confirm that the RF signal waveform peak value is 60 mV or more.
 - (2) Confirm that the undershoot level of the RF signal waveform's flat portion is within 10%.



7. When the measured values are not within the above tolerances, repeat items 3 - 6 above.

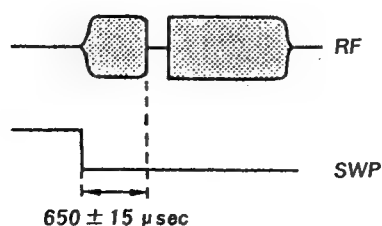
Adjustment Point : mechanism assembly

DPG Adjustment

Perform the following adjustment without fail when the drum has been replaced.

Adjustment Procedure :

1. Connect oscilloscope CH-1 to TP (RF) and CH-2 to TP (SWP) on the main board. (Use CH-2 as the trigger. When the CH-2 signal is inverted, the trailing edge can be used for synchronization.)
2. Put the set into the test mode and load test tape TY-7252 (8-909-822-00).
3. Set the REC MODE switch to LONG (ATF: ON) and the TIMER switch to OFF (OFFSET: 0).
4. Press the AMS (▶▶) key.
5. Press the ◀◀ and ▶▶ keys as appropriate so that the gap between the oscilloscope SWP and RF signals becomes $650 \pm 15 \mu\text{sec}$. (Hold the ◀◀ and ▶▶ keys down for more than 1 second to perform rough adjustment. Hold them down for approximately 0.2 seconds for fine adjustment.)

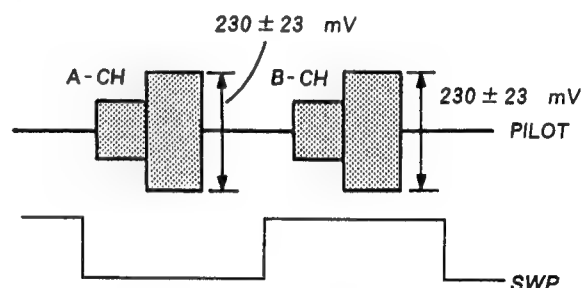


ATF Pilot Adjustment

Perform this adjustment after cleaning the heads with a cleaning cassette.

Adjust Procedure:

1. Connect oscilloscope CH-1 to CN553 pin ① (ATF-PILOT) and CH-2 to CN553 pin ④ (SWP) on the digital board. (Use CH-2 as the trigger.) When the CH-2 signal is inverted, the trailing edge can be used for synchronization.)
2. Put the set into the test mode and load test tape TY-7252 (8-909-822-00).
3. Put the set into the PLAY (▶) mode and adjust RV505 (B-CH) and RV506 (A-CH) on the main board so that the oscilloscope PILOT waveform P-P value is $230 \pm 23 \text{ mV}$.



Adjustment Point: digital board

3-3. CHECKS AND ADJUSTMENTS FOR DATE FUNCTION

Clock IC Back-up Check

- When there is the short-circuit position on the pattern around the lithium battery (BAT501) or the clock IC (IC712) or disconnecting CN573 on removing the front panel assembly the clock is reset.

(In spite of pressing PRESET button, the date indication becomes
 “ _ _ Y _ _ M _ _ D ” “ _ _ H _ _ M _ _ S ”)

At this time, check the back-up function by the procedures given below.

- Connect DC voltmeter to CN554 pin ① (BATT+) and pin ② (BATT -) on the digital board.
- When the power is off, the voltage value of the item (1) should be less than +30 mV.

(When the voltage value becomes +30 mV or more, Check around IC712 or replace IC712.)

- When the power is on, the voltage value of the item (1) should be less than 0 mV (- (minus) indication).

(When the voltage value becomes + (plus) indication, Check around D718 or replace D718.)

- When the above voltage values are normal, set the preset date and time (year, month, day, day of the week, hour, minute, second) according to the instruction manual.
- After setting the time on the item (4), turn power off and turn power on several seconds later, and check the clock works normally.

Back-up Battery Replacement

The life of the back-up battery under normal use (normal temperature, normal humidity) is approximately ten years or more. (On the instruction manual, described “approximately five years”.)

Be carefull about the following points on the battery replacement.

- Repair the cause of the battery wastage by performing mentioned above “Clock IC Back-up Check”.
- The open-circuit voltage of the replaced battery is 3.0 V or more as the new one, and when it is 2.0 V or less, it is completely consumed, replace it with new one.
- After the battery replacement, perform “Clock IC Back-up Check” again and set the time*.

* Time setting procedure described on page 9.

Clock Frequency Adjustment

Note:

- On normal repair, this adjustment is not necessary. Don't turn the trimmer capacitor CT701.
- Only when needing this adjustment (X702 replacement or so on), perform in the order given.
- Use the frequency counter with six digits or more.

Adjustment Procedure:

- Connect a frequency counter to the test land “OSC FREQ” on the display board.
- Turn power on and adjust with CT701 so that the reading on the frequency counter becomes 2048.00 ± 0.01 Hz (in normal temperature)
- Perform “Clock IC Back-up Check” described above.

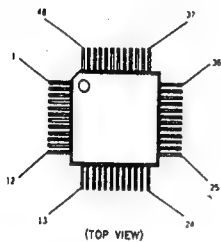
SECTION 4 DIAGRAMS

• SEMICONDUCTOR LEAD LAYOUTS

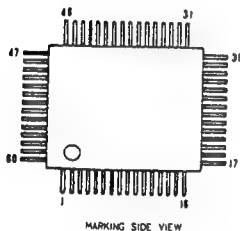
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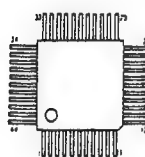
CXA1045Q-Z
CXA1364R



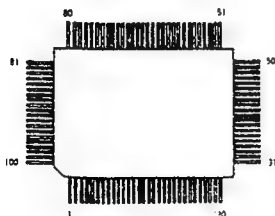
CXD1136Q



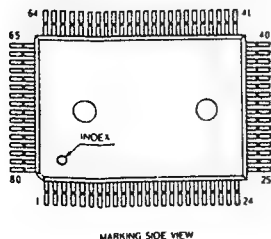
CXD2552Q-1



CXD2601AQ



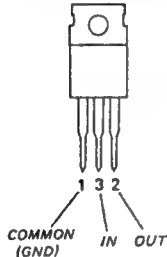
CXP80524-020Q
MSC62408-020GS-K



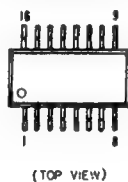
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M5F7808
TA7805S
μ PC2405HF
μ PC2406HF



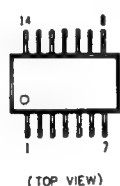
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TA7905S



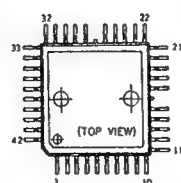
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MSM6338MS-K



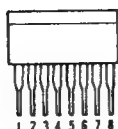
MC14069UBF



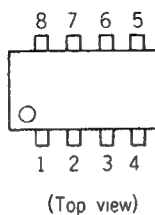
M50782FP



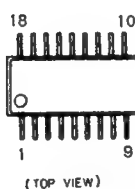
M54641L



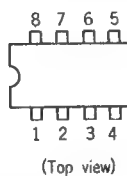
RC4560DD



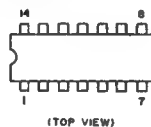
RF5C62



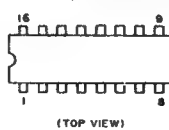
LM393P
M5239P
NE5532P
μ PC358C



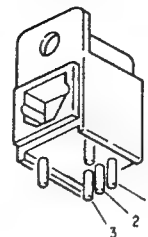
SN74HC393N
LC74HC08
SN74HCU04AN
SN74HC00AN
SN74HC04AN
SN74HC14AN
SN74HC74N
SN74LS624N
TC74HCU04AF
MC74AC74N



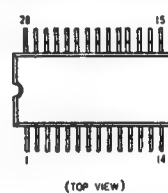
SN74HC157AN
SN74HC175AN
TC74HC123AP



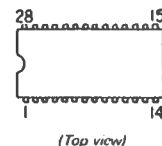
GP1F32R
GP1F32T



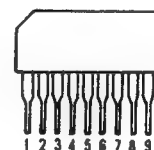
CXA1046M
CXK58257M-12L



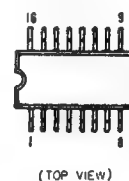
SM5813APT



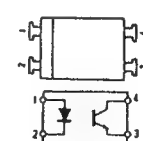
TC5081AP



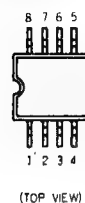
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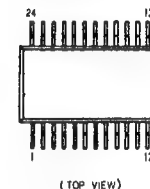
PC817-C



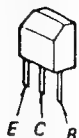
CXK1011M
LM358M
LM393M



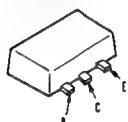
CXK5816M-12L



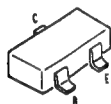
2SD1312-K



2SB798-DL
2SD1621-R



DTA114EK
DTC114EK
DTC124EK
DTC143TK
DTC144EK
2SC1623-L6



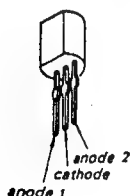
2SK241-GR



2SK246-GR
2SK30A-O



KV1320



DTA114ES
DTC114ES



2SA985A-P
2SB1370-EF
2SC2275-P
2SD2061-EF



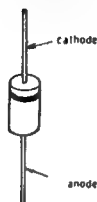
2SA1175-HFE
2SC2785-HFE



2SA1371-E
2SB1013-4
2SC3468-E
2SD1387-3



EQB01-08Q
HZ4BLL
10E2N
30DF2



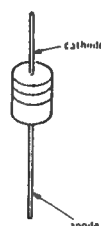
F10P20F



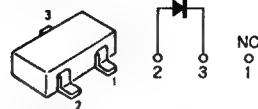
F10P20FR



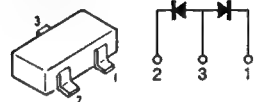
HZS6A1L
HZS33-1L
RD3.3ES-B2
RD3.9ES-B2
RD5.1JS-B2
1SS168
1SS202-1
11ES2



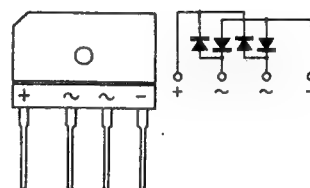
SB05-05CP



1S2836



RBV-602-01



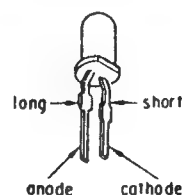
AA3432S



SLR-34MC3
SLR-34VC3



SEL2510W-D
GL-3PR9



4-1. PIN FUNCTION

IC501 MASTER microcomputer (CXP80524)



While exchanging data with the display microcomputer (IC701) by the serial communication, this IC controls the mechanism check servo and selects inputs DSP (IC502, 503) and the attenuator (IC504).

| PIN | SIGNAL NAME | I/O | LOGIC | | FUNCTION | | | | | | | | | | | | | | | |
|-----|-------------|-------|-----------------|---|--|--|------|-------|-----|-----|-----|---|---|---|---|-----|---|---|---|---|
| | | | O | I | | | | | | | | | | | | | | | | |
| 1 | ATTEX | O | Outside (ATTCK) | Inside (1/8 LECK) | Attenuator (IC504) clock select output | | | | | | | | | | | | | | | |
| 2 | ATTCK | O | — | — | Attenuator (IC504) level set clock output | | | | | | | | | | | | | | | |
| 3 | FPON | O | OFF | ON | FWD plunger (PM002) ON/OFF output | | | | | | | | | | | | | | | |
| 4 | FPKI | O | OFF | ON | FWD plunger (PM002) KICK output | | | | | | | | | | | | | | | |
| 5 | TLOCK | O | ON | OFF | REEL T side LOCK output | | | | | | | | | | | | | | | |
| 6 | CPDIR | O | FWD | RVS | CAPSTAN DIRECTION select output | | | | | | | | | | | | | | | |
| 7 | BPON | O | OFF | ON | REEL BRAKE plunger (PM001) ON/OFF output | | | | | | | | | | | | | | | |
| 8 | BPKI | O | OFF | ON | REEL BRAKE plunger (PM001) KICK output | | | | | | | | | | | | | | | |
| 9 | DRON | O | OFF | ON | DRUM motor ON/OFF output | | | | | | | | | | | | | | | |
| 10 | DRDIR | O | NORM | RVS | DRUM DIRECTION select input | | | | | | | | | | | | | | | |
| 11 | OPT/COA | O | OPTICAL | COAXIAL | DIGITAL IN, OPTICAL/COAXIAL select output | | | | | | | | | | | | | | | |
| 12 | DIG/ANA | O | DIGITAL | ANALOG | INPUT/DIGITAL/ANALOG select output | | | | | | | | | | | | | | | |
| 13 | REC/PB | O | REC | PB | Mode REC/PB select input | | | | | | | | | | | | | | | |
| 14 | MST/SLV | O | SLAVE | MASTER | MONITOR MASTER/SLAVE (SOURCE/TAPE) select | | | | | | | | | | | | | | | |
| 15 | SLVMUT | O | OFF | MUTE | MUTE output so SLAVE DSP (IC503) | | | | | | | | | | | | | | | |
| 16 | MSTMUT | O | OFF | MUTE | MUTE output to MASTER DSP (IC502) | | | | | | | | | | | | | | | |
| 17 | FS1 | O | — | — | fs select <table><tr><td></td><td>STOP</td><td>44.1K</td><td>32K</td><td>48K</td></tr><tr><td>FS1</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>FS0</td><td>0</td><td>1</td><td>0</td><td>1</td></tr></table> | | STOP | 44.1K | 32K | 48K | FS1 | 0 | 0 | 1 | 1 | FS0 | 0 | 1 | 0 | 1 |
| | STOP | 44.1K | 32K | 48K | | | | | | | | | | | | | | | | |
| FS1 | 0 | 0 | 1 | 1 | | | | | | | | | | | | | | | | |
| FS0 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | |
| 18 | FS0 | O | — | — | | | | | | | | | | | | | | | | |
| 19 | DFMUT | O | OFF | MUTE | MUTE output to DIG-FIL (IC312) | | | | | | | | | | | | | | | |
| 20 | DOCNT | O | OFF | ON | DIGITAL OUT (ON/OFF) CONTROL output | | | | | | | | | | | | | | | |
| 21 | LMEJ | O | OFF | ON | LOADING motor EJECT direction } BRAKE MODE LOADING motor LOAD direction } at ON-ON | | | | | | | | | | | | | | | |
| 22 | LMLD | O | OFF | ON | | | | | | | | | | | | | | | | |
| 23 | LINMUT | O | OFF | MUTE | Line mute (relay) output | | | | | | | | | | | | | | | |
| 24 | DISPSL | O | ON | OFF | DISPLAY microcomputer communication SELECT output | | | | | | | | | | | | | | | |
| 25 | TEND | I | — | — | T side END SENSOR TLED ON } DC (=): Magnetic part S side END SENSOR SLED ON } AC (): Leader tape | | | | | | | | | | | | | | | |
| 26 | SEND | I | — | — | | | | | | | | | | | | | | | | |
| 27 | CMCL | O | OFF | ON | CAS-CON. motor CLOSE direction } BRAKE MODE CAS-CON. motor OPEN direction } at ON-ON | | | | | | | | | | | | | | | |
| 28 | CMOP | O | OFF | ON | | | | | | | | | | | | | | | | |
| 29 | TLED | O | OFF | ON | T side LED drive output } DUTY 50% S side LED drive output } DRIVE on T/S antiphase | | | | | | | | | | | | | | | |
| 30 | SLED | O | OFF | ON | | | | | | | | | | | | | | | | |
| 31 | MP | I | Inside ROM | Outside ROM | MICRO PROCESSOR MODE input (fixed to "0") | | | | | | | | | | | | | | | |
| 32 | XRST | I | RESET |  RELEASE | RESET | | | | | | | | | | | | | | | |
| 33 | Vss | — | — | — | GND | | | | | | | | | | | | | | | |
| 34 | XTAL | — | — | — | NC | | | | | | | | | | | | | | | |
| 35 | EXTAL | — | — | — | Microcomputer external clock (=MCLK=9.408 MHz) | | | | | | | | | | | | | | | |
| 36 | DISPSY | I | ON | OFF | DISPLAY microcomputer communication sync input | | | | | | | | | | | | | | | |
| 37 | DISPDI | I | — | — | DISPLAY microcomputer communication serial data input | | | | | | | | | | | | | | | |
| 38 | DISPDO | O | — | — | DISPLAY microcomputer communication serial data output | | | | | | | | | | | | | | | |

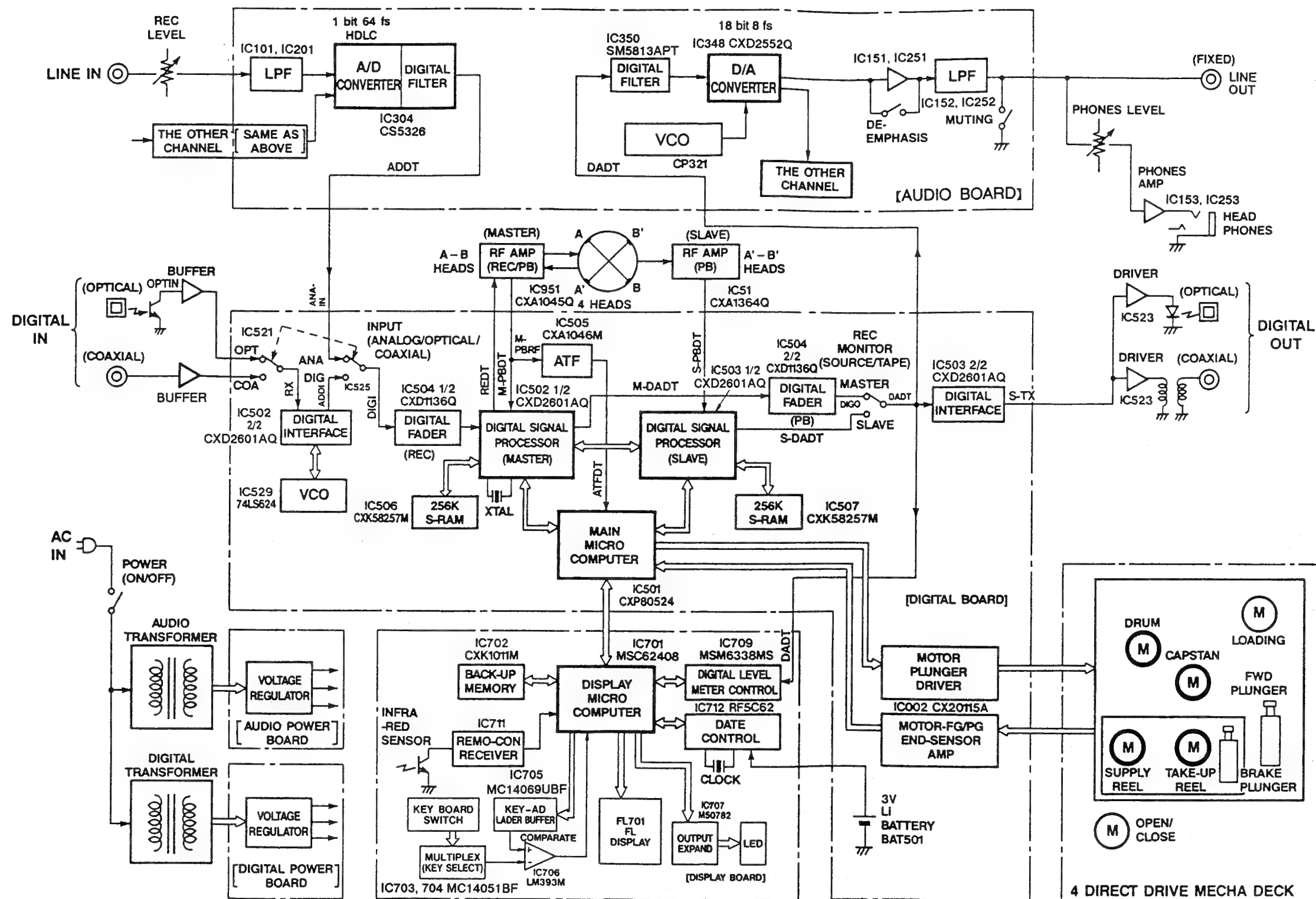
| PIN | SIGNAL NAME | I/O | LOGIC | | FUNCTION |
|-----|-------------|-----|------------------------|-----------------------------|---|
| | | | O | I | |
| 39 | DISPCK | I | — | — | DISPLAY microcomputer communication serial clock input |
| 40 | SBSY | I | ON (communicatable) | OFF (not communicatable) | Signal processing communication SUB DATA SYNC. input |
| 41 | SBDI | I | — | — | Signal Processing communication SUB DATA IN. input |
| 42 | SBDO | O | — | — | Signal Processing communication SUB DATA OUT. input |
| 43 | SDCK | O | — | — | Signal Processing communication SUB DATA CLOCK. input |
| 44 | AVss | — | — | — | Analogue input GND |
| 45 | AVref | — | — | — | Analogue input REFERENCE (+5 V) |
| 46 | AVdd | — | — | — | Analogue input +5 V |
| 47 | | I | | | Not used (Pull-up) |
| 48 | SWAD3 | I | — | — | SWITCH A/D input (CAS-CON system) |
| 49 | SWAD2 | I | — | — | SWITCH A/D input (LOADING system) |
| 50 | SWAD1 | I | — | — | SWITCH A/D input (RECGN system) |
| 51 | SWAD0 | I | — | — | SWITCH A/D input (RECGN system) |
| 52 | LEVSYN | I | NONE | MUSIC | LEVEL SYNC input (Write START-ID by the audio input) |
| 53 | MUTM | I | OFF | MUTE | MUTE monitor input from MASTER DSP (IC502) |
| 54 | ATFIN | I | — | — | ATF PILOT signal input |
| 55 | TFG | I | — | — | T-REEL FG input |
| 56 | SFG | I | — | — | S-REEL FG input |
| 57 | CFG | I | — | — | CAPSTAN FG input |
| 58 | DFG | I | — | — | DRUM FG input |
| 59 | DPG | I | — | — | DRUM PG input |
| 60 | DREF | I | — | — | DRUM REFERENCE ^{SP LP SEARCH} 100/3, 50/3, 1.6k (Hz \pm ϵ) input |
| 61 | MCLK | I | — | — | MASTER CLOCK (FCH=9.408 MHz) input |
| 62 | PBDT | I | — | — | PB (playback) DATA input |
| 63 | SWP | O | Ach | Bch | SWITCHING PULSE |
| 64 | DPWM | O | — | — | DRUM PWM output |
| 65 | CPWM | O | — | — | CAPSTAN PWM output |
| 66 | TPWM | O | — | — | T-REEL PWM output |
| 67 | SPWM | O | — | — | S-REEL PWM output |
| 68 | ADRES | O | RESET | ACTIVE | Reset output for AD converter |
| 69 | ERMN | I | RF is none and REC | RF exists | ERROR MONITOR (PBRF exists or not) input |
| 70 | XTEST | I | ON | OFF | TEST MODE input |
| 71 | POWDN | I | ON | OFF | POWER DOWN detect input (AC POWER OFF input) |
| 72 | VDD | — | — | — | +5 V |
| 73 | VSS | — | — | — | GND |
| 74 | NC | — | — | — | Not connected |
| 75 | ATFS2 | O | — | — | ATF Sync signal output to MASTER DSP (IC502) |
| 76 | DIVCO | O | OSC ON | OSC STOPS | Osc. ON/OFF select output to DIG-IN VCO (IC529) |
| 77 | ATFS3 | O | — | — | SYNC3/RF AMP MODE for ATF (IC505) |
| 78 | LP/SP | O | LP | SP | LONG PLAY/STANDARD PLAY select output |
| 79 | XDTR | O | ON | OFF | DATA RECORDER MODE (ON during LP after-recording or searching) |
| 80 | ATTMUT | O | OFF | MUTE | Attenuator (IC504) MUTE, (ON during fading) |

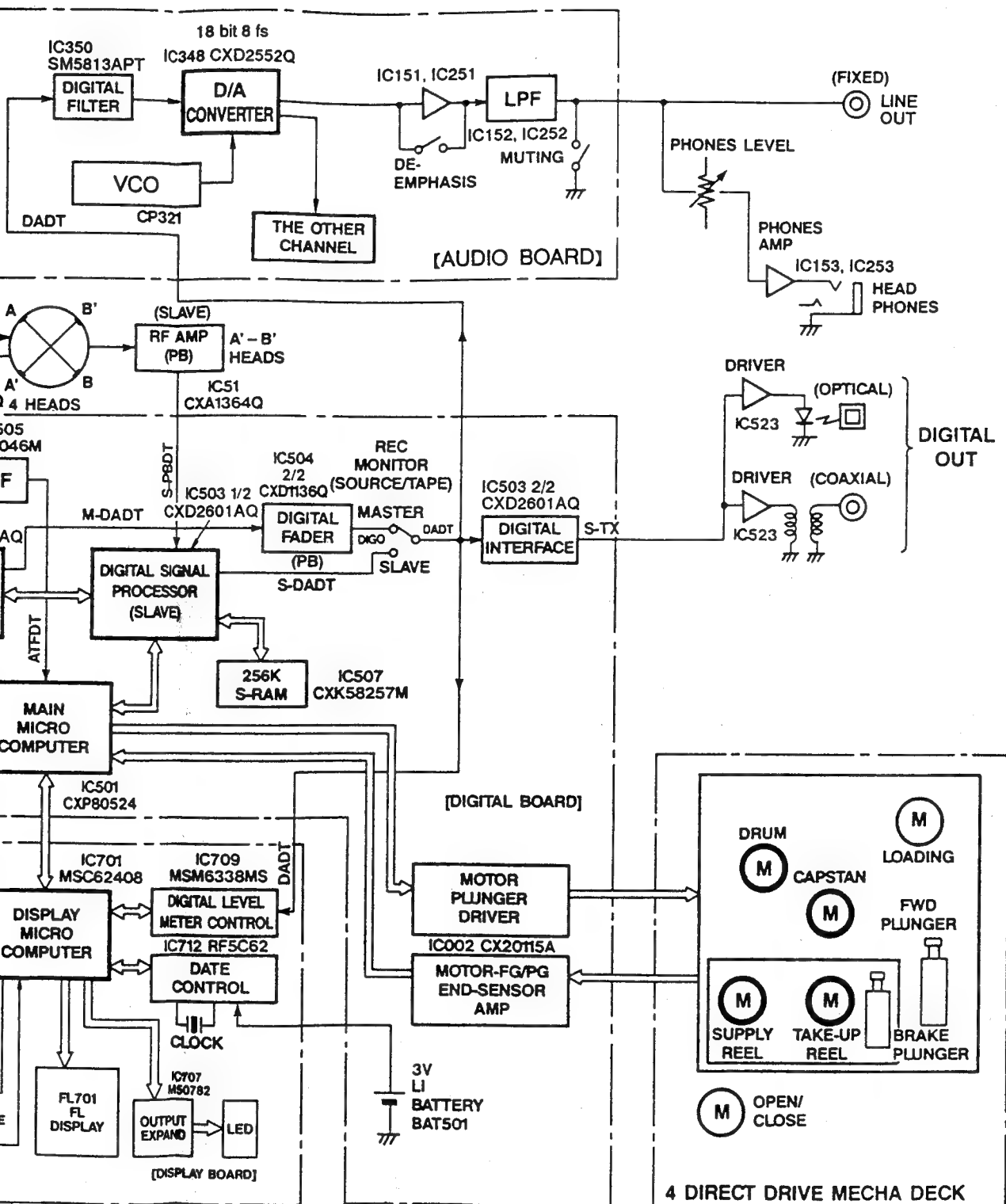
IC701 DISPLAY MICROCOMPUTER (MSC62408)

While serial communicating, this IC controls the fluorescent display tube, the level meter (IC709), the clock (IC712), the remote control signal, LED indication by the expansion port (IC707), key input scan, address set for SRAM (IC718).

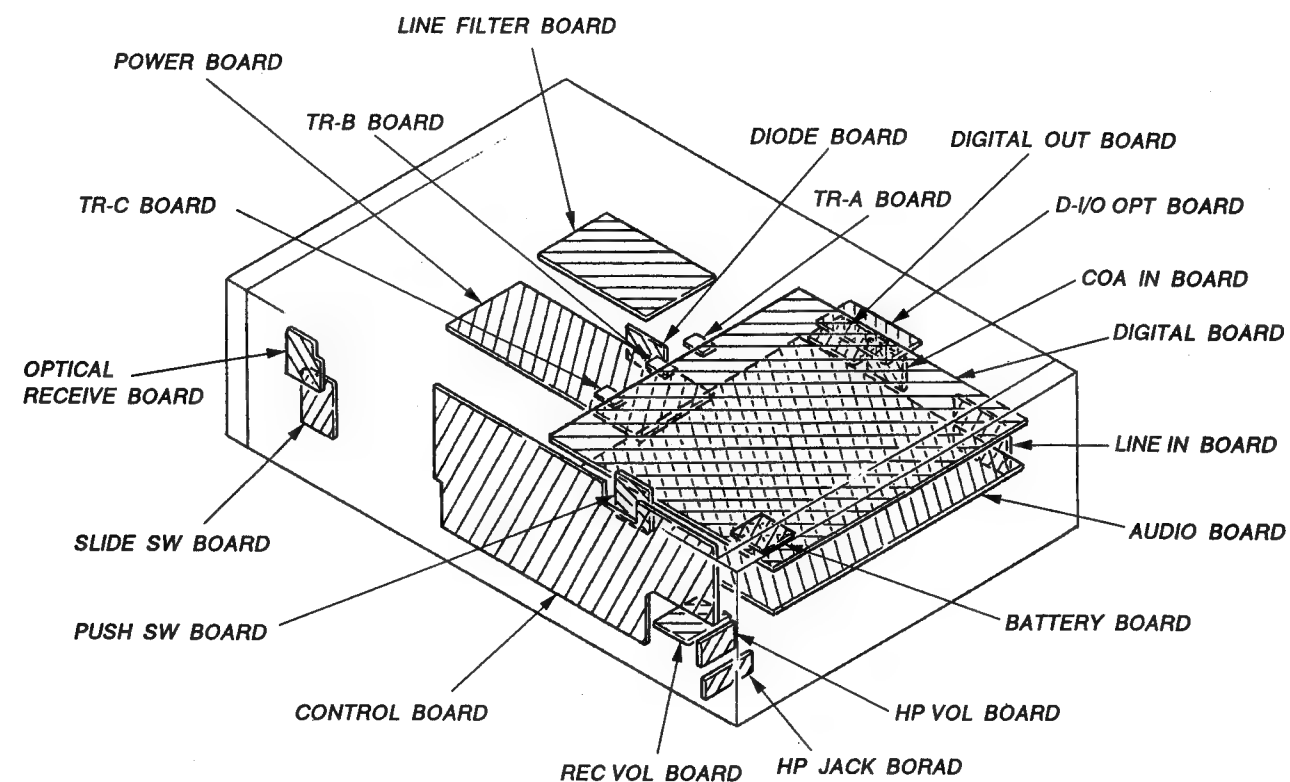
| PIN | SIGNAL NAME | I/O | LOGIC | | FUNCTION |
|---------|-------------|-----|--|---|--|
| | | | O | I | |
| 1 - 2 | D6 - D7 | I/O | — | — | Data bus |
| 3 | PMODE0 | I | | | PORT MODE 0 PORT MODE 1 PORT MODE 2 } Mode setting input (normally open) for each processing |
| 4 | PMODE1 | I | | | |
| 5 | PMODE2 | I | | | |
| 6 | MMUTE | I | OFF | MUTE | Level meter muting input |
| 7 | ROMSI | I | — | — | Serial data input from E ² PROM (IC702) |
| 8 | ROMBY | I | ON | OFF | BUSY signal input from E ² PROM (IC702) |
| 9 | CMPIN | I | Vref < Vkey | Vref > Vkey | Comparator out input for KEY A/D |
| 10 | MSTAK | O | ON | OFF | Acknowledge output to the master microcomputer (IC501) |
| 11 | CPUSC | O | — | — | On the microcomputer communication, serial clock output |
| 12 | CPUSO | O | — | — | On the microcomputer communication, serial data output |
| 13 | CPUSI | I | — | — | On the microcomputer communication, serial data input |
| 14 | MOTUP | O | OFF | ON | UP output for the volume with motor |
| 15 | MOTDN | O | OFF | ON | DOWN output for the volume with motor |
| 16 | CLKCE | O | ON | OFF | Chip enable output to the real time clock (IC712) |
| 17 | RMC | I | — | — | Received remote control signal input |
| 18 | MSTSY | I | ON | OFF | Sync input from the master microcomputer (IC501) |
| 19 | TIMIN | I | ON | OFF | The real time clock (IC712) timing signal input |
| 20 | XRST | I | RESET | RELEASE | Microcomputer reset signal input |
| 21 | TEST | I | — |  — | Test mode (Normally GND level) |
| 22 | EXPST | O | LATCH | ACTIVE | Strobe signal output to the output expansion IC (IC707) |
| 23 | METCE | O |  ON | OFF | Chip enable signal output to the meter IC (IC709) |
| 24 | WR | O | ON | OFF | WRITE signal output to S-RAM (IC708) and the meter IC (IC709) |
| 25 | RD | O | ON | OFF | READ signal output to S-RAM (IC708) and the meter IC (IC709) |
| 26 | RAMCE | O | ON | OFF | Chip enable signal output to S-RAM (IC708) |
| 27 | ROMSO | O | — | — | Serial data output to E ² PROM (IC702) |
| 28 | ROMSC | O | — | — | Serial clock signal output to E ² PROM (IC702) |
| 29 | ROMCE | O | ON | OFF | Chip enable signal output to E ² PROM (IC702) |
| 30 | OSCI | O | — | — | Ceramic oscillator for clock connecting terminal (4.19 MHz) |
| 31 | OSCO | O | — | — | Ceramic oscillator for clock connecting terminal (4.19 MHz) |
| 32 | GND | O | — | — | GND |
| 33 - 40 | T0 - T7 | O | OFF | ON | FL grid output |
| 41 - 48 | S31 - S24 | O | OFF | ON | FL segment output |
| 49 | VFLT | — | — | — | B+ for FL (+35 V) |
| 50 - 73 | S23 - S0 | O | OFF | ON | FL segment output |
| 74 | VDD | — | — | — | +5 V power supply |
| 75 - 80 | D0 - D5 | I/O | — | — | Data bus |

4-2. BLOCK DIAGRAM

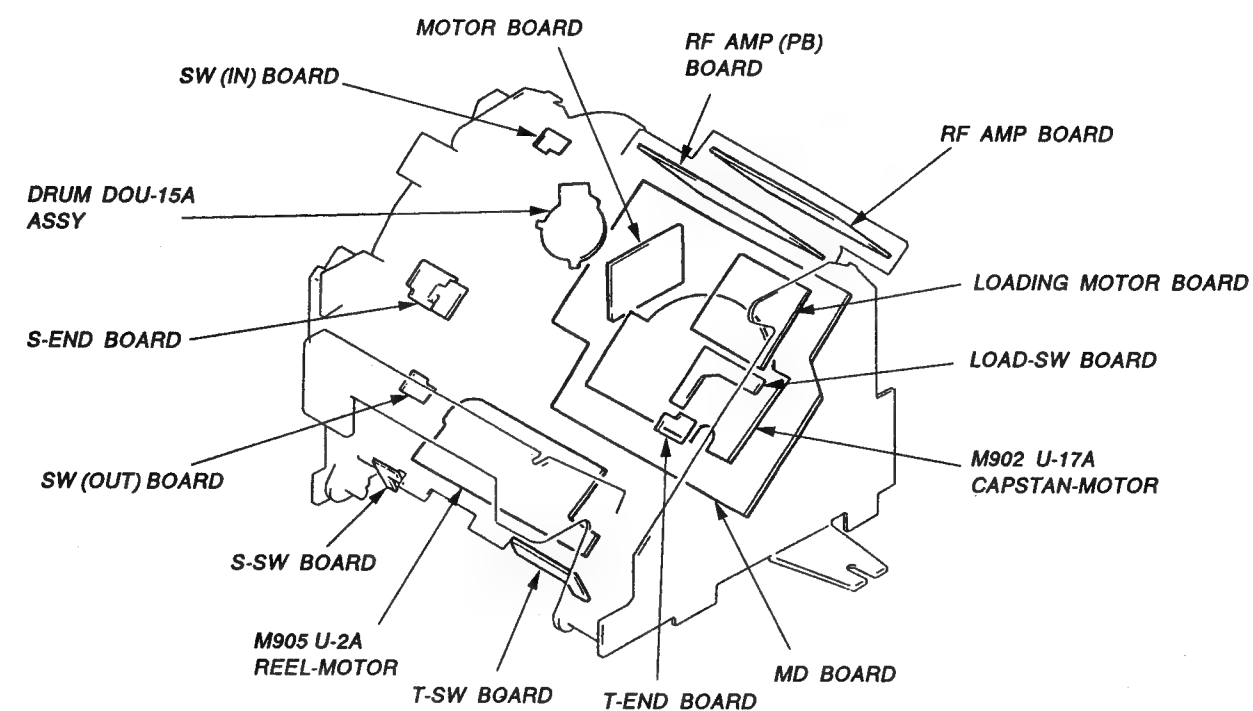


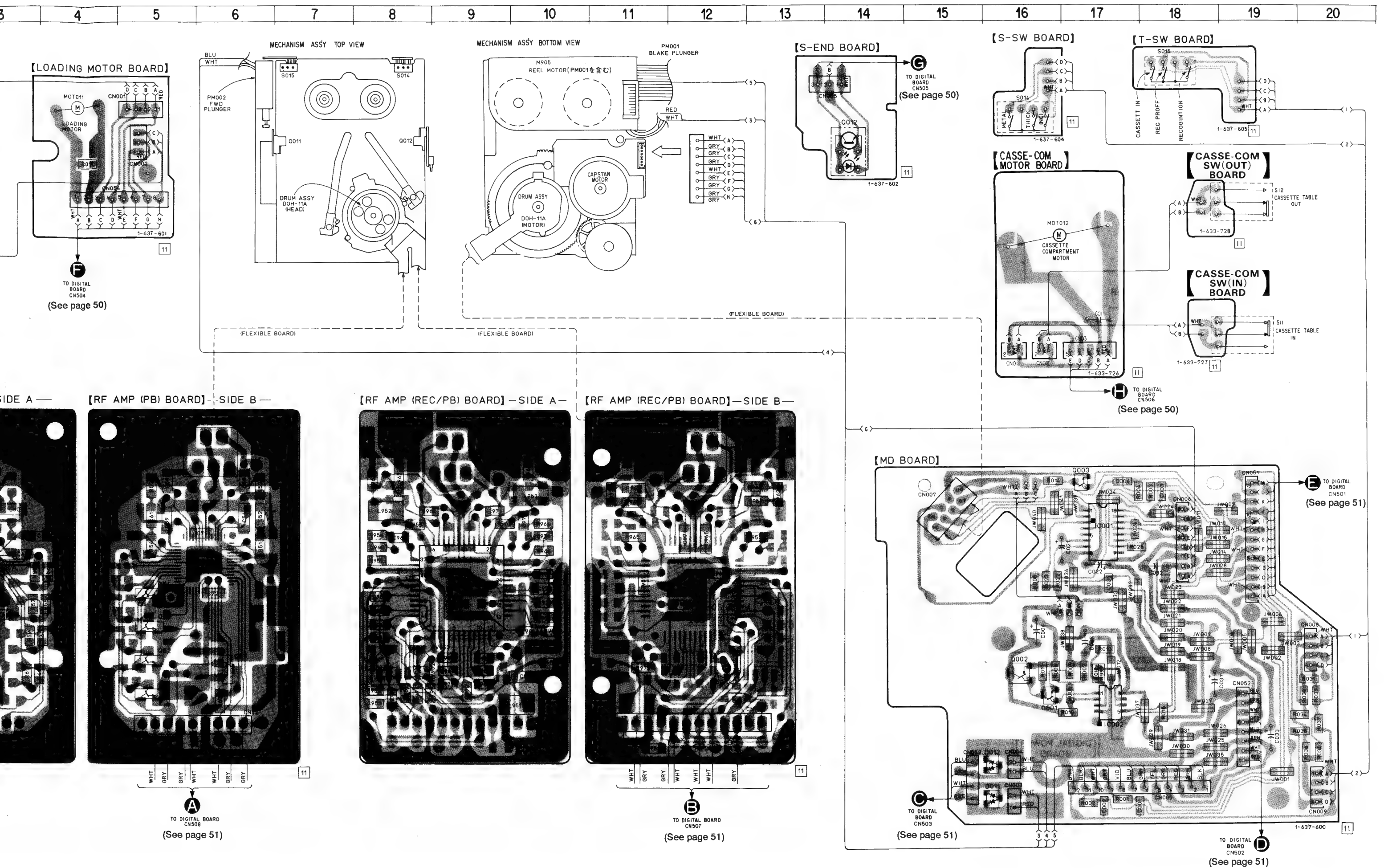


• CIRCUIT BOARDS LOCATION



(DATM-51)





A

B

C

D

E

F

G

H

I

J

K

L

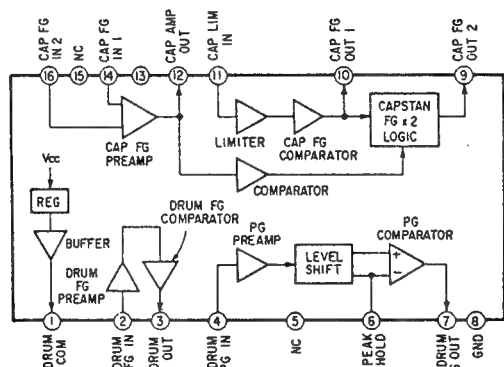
M

N

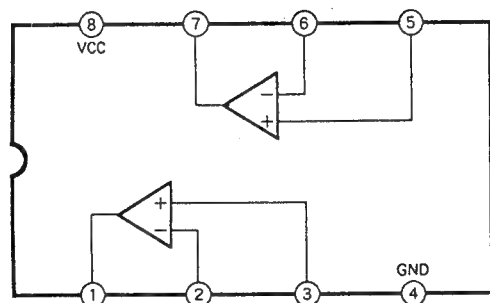
O

P

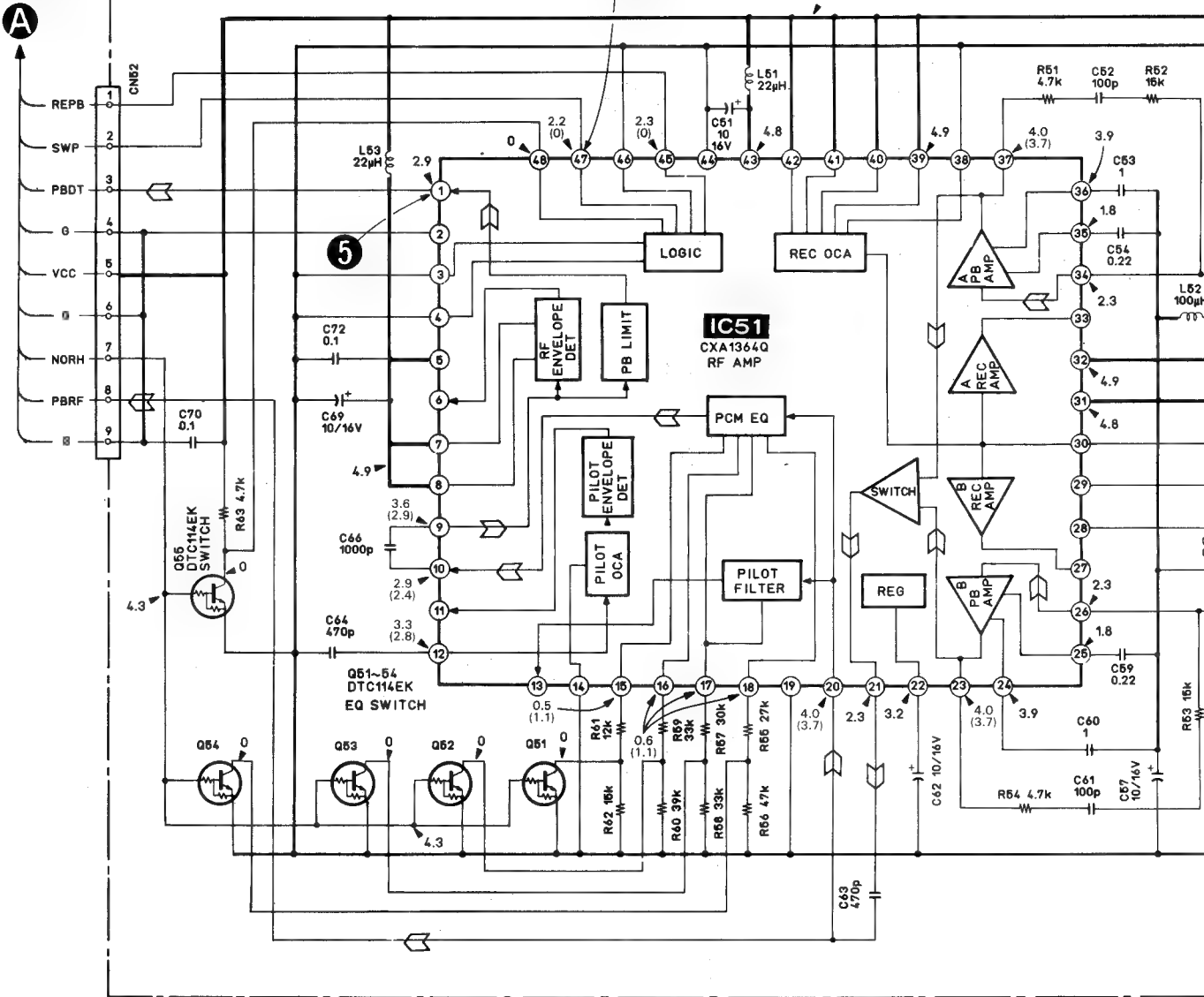
IC001 CX20115A



IC002 LM358M

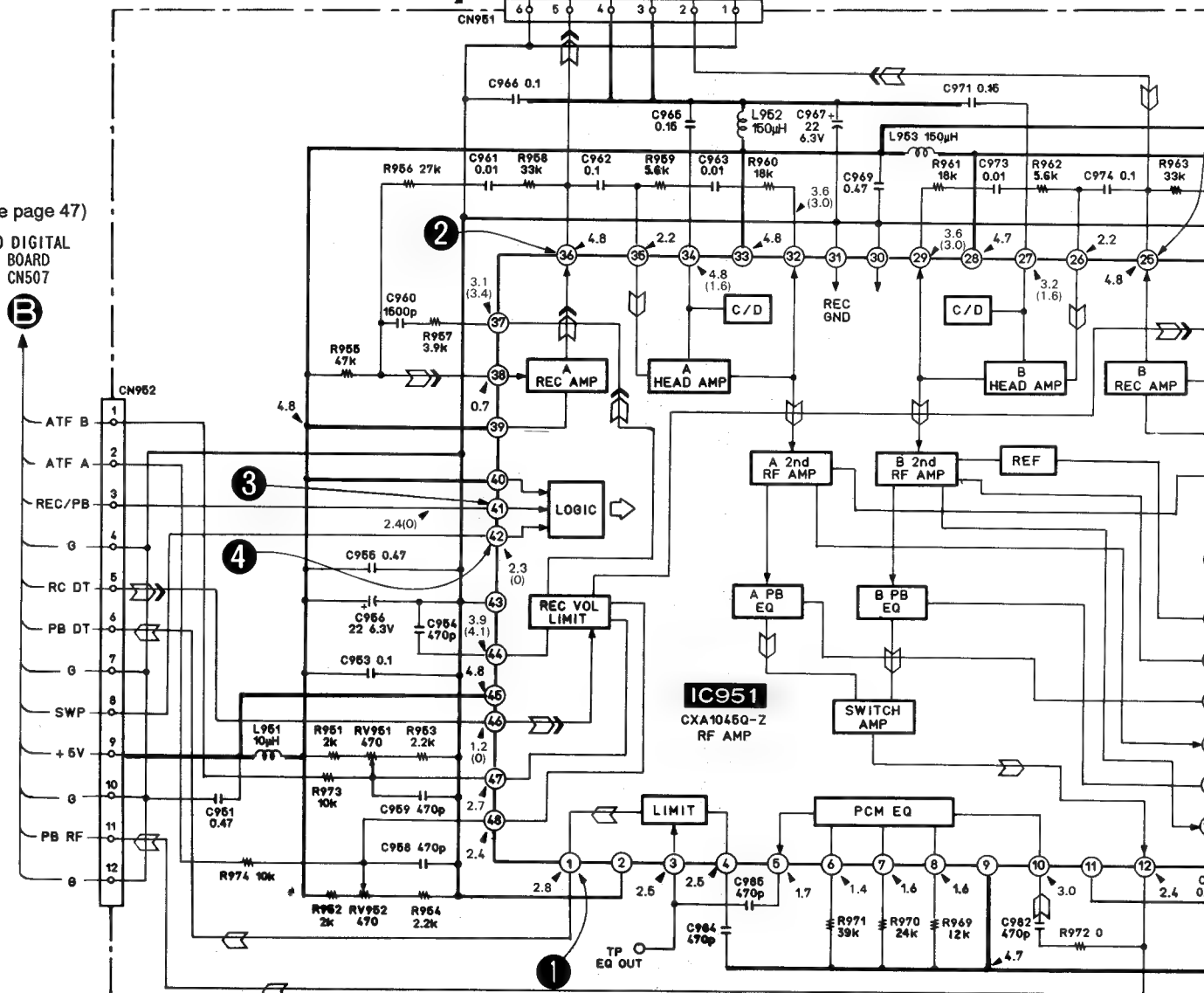


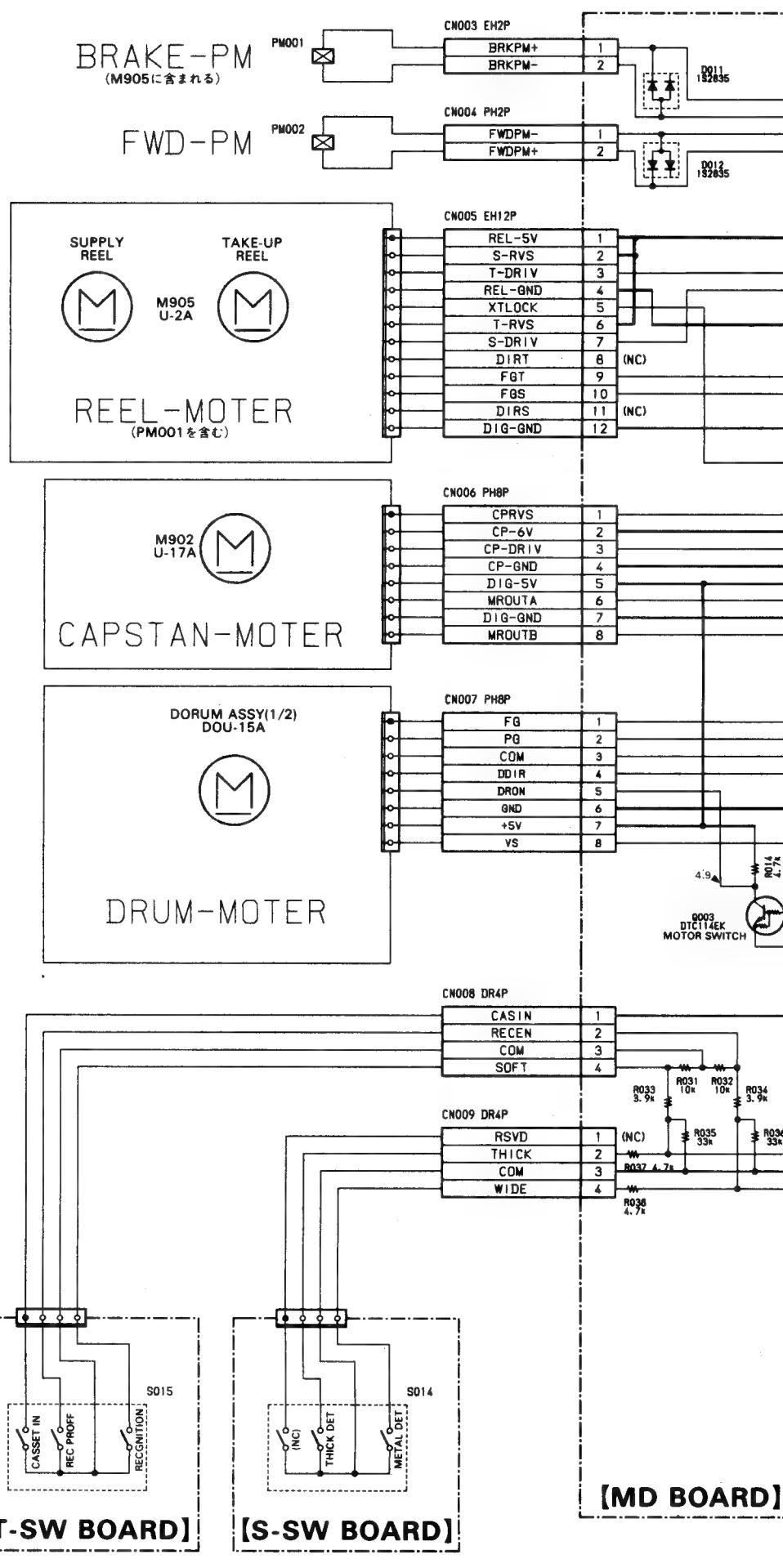
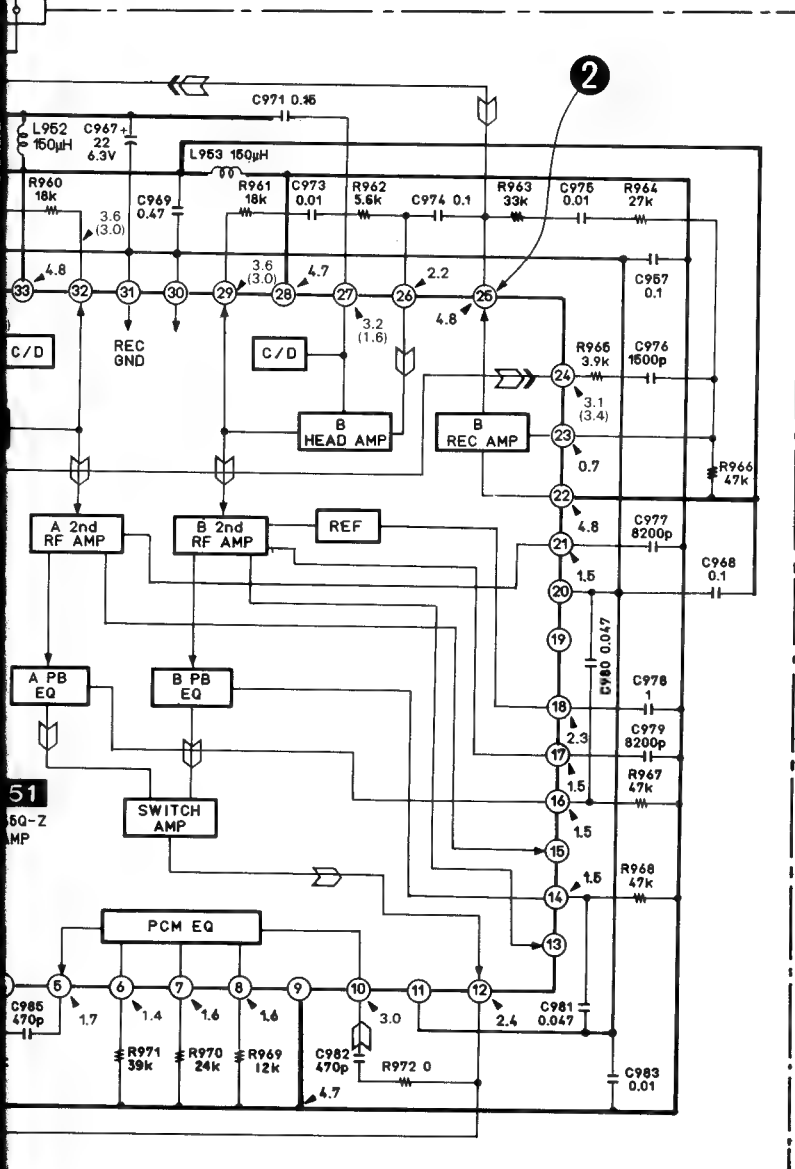
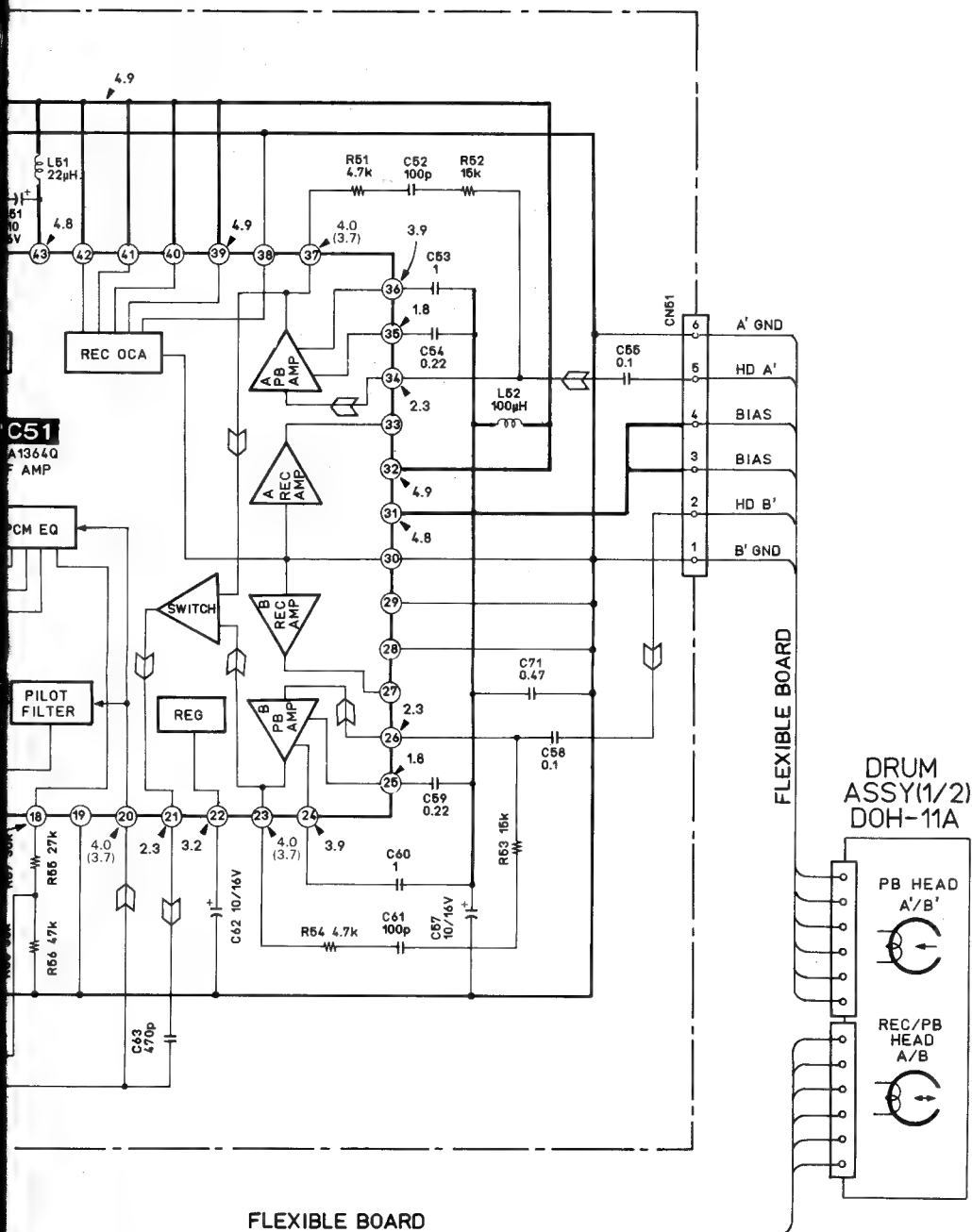
[RF AMP(PB) BOARD]

(See page 47)
TO DIGITAL
BOARD
CN508

FLEXIBLE BOARD

[RF AMP(REC/PB) BOARD]

(See page 47)
TO DIGITAL
BOARD
CN507



Note on Schematic Diagram:

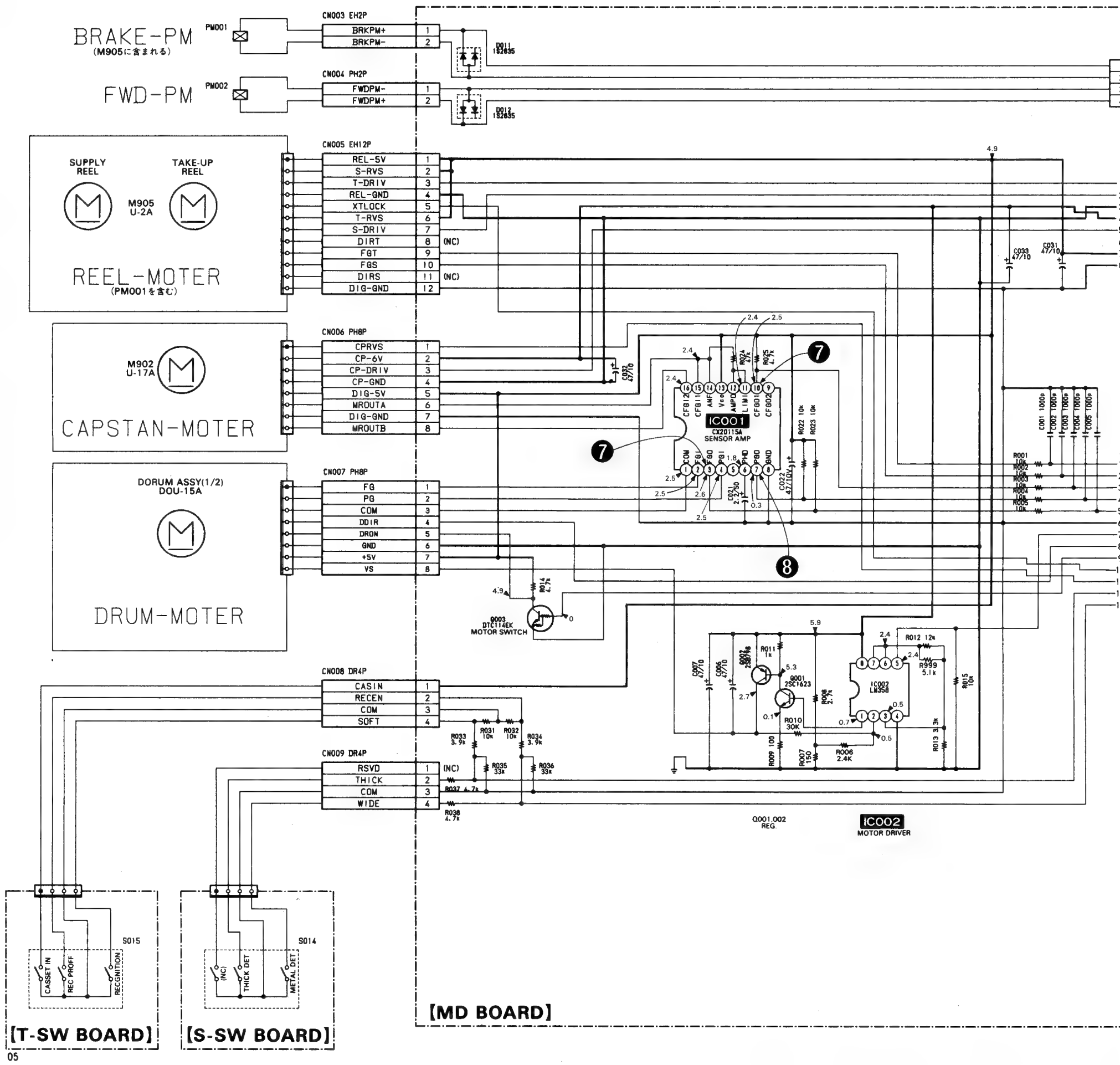
- All capacitors are in μF unless otherwise noted. pF : μF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.
- $\text{---}\text{---}\text{---}$: fusible resistor.

Note:
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- $\text{---}\text{---}\text{---}$: B + Line.
- $\text{---}\text{---}\text{---}$: B - Line.
- $\text{---}\text{---}\text{---}$: adjustment for repair.

- Voltages and waveforms are dc with respect to ground no-signal (detuned) conditions. no mark : REC/PLAY () : PLAY
- Voltages are taken with a VOM (input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path. $\text{---}\text{---}\text{---}$: PB $\text{---}\text{---}\text{---}$: REC



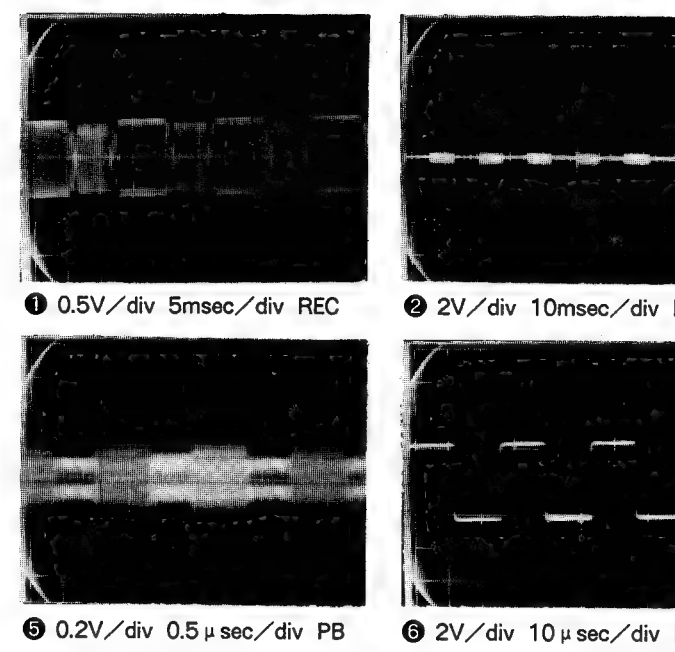
Note on Schematic Diagram:

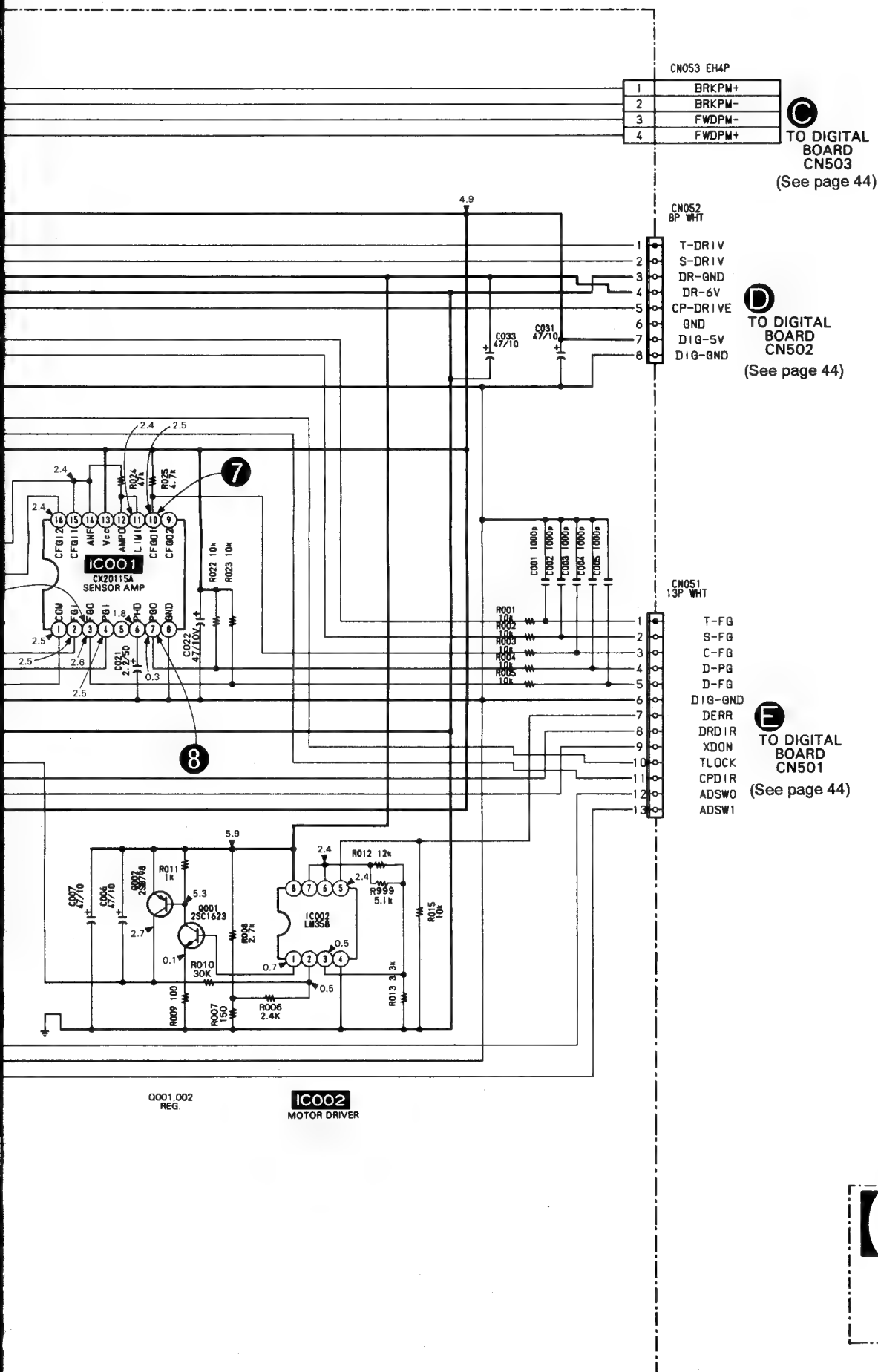
- All capacitors are in μF unless otherwise noted. pF : μpF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.
- --- : fusible resistor.

Note:
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

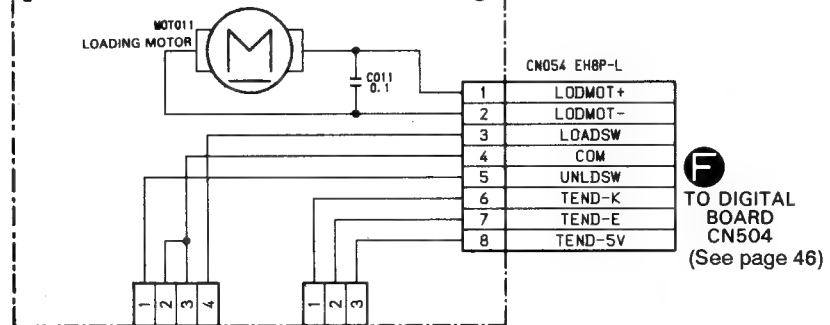
Note:
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : REC/PLAY
() : PLAY
- Voltages are taken with a VOM (input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 Σ : PB
 $\Sigma\Sigma$: REC

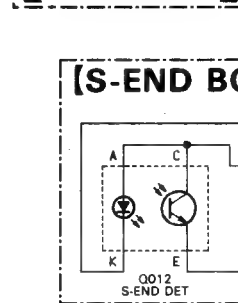




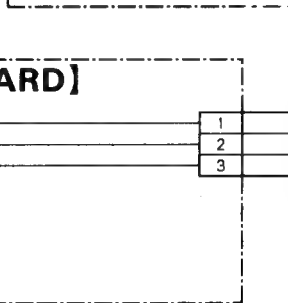
[LOADING MOTOR BOARD]



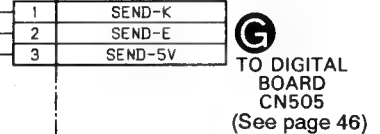
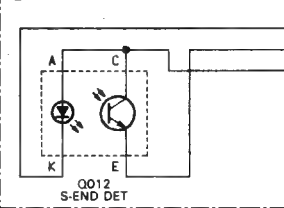
[LOAD-SW BOARD]



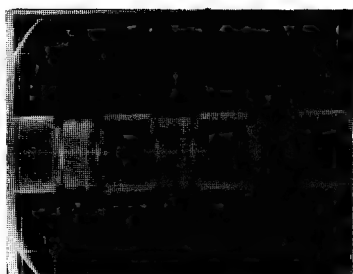
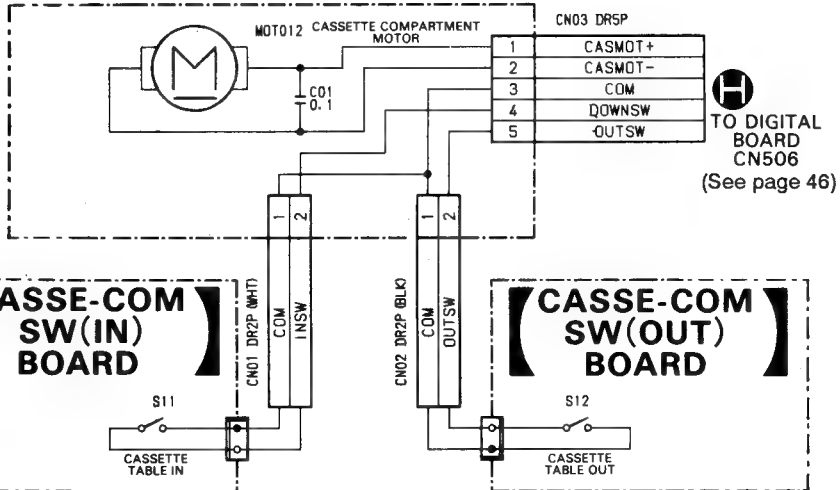
[T-END BOARD]



[S-END BOARD]



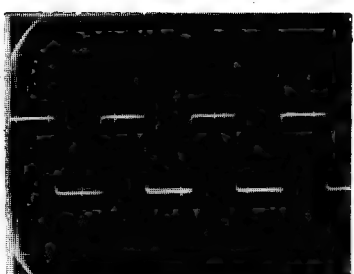
[CASSE-COM MOTOR BOARD]



① 0.5V/div 5msec/div REC



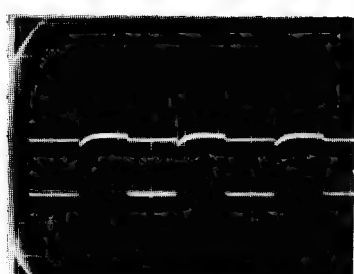
② 2V/div 10msec/div REC



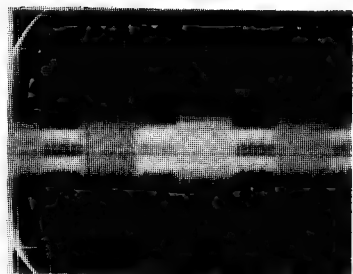
③ 2V/div 5msec/div REC



④ 2V/div 10msec/div REC



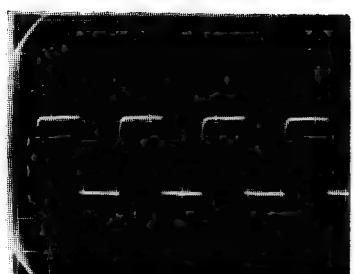
⑤ 0.5V/div 5msec/div REC



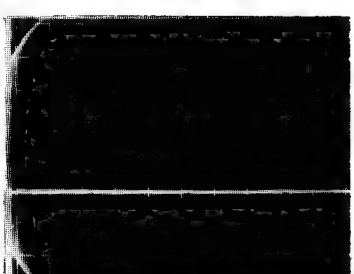
⑥ 0.2V/div 0.5μsec/div PB



⑦ 2V/div 10μsec/div REC/PB

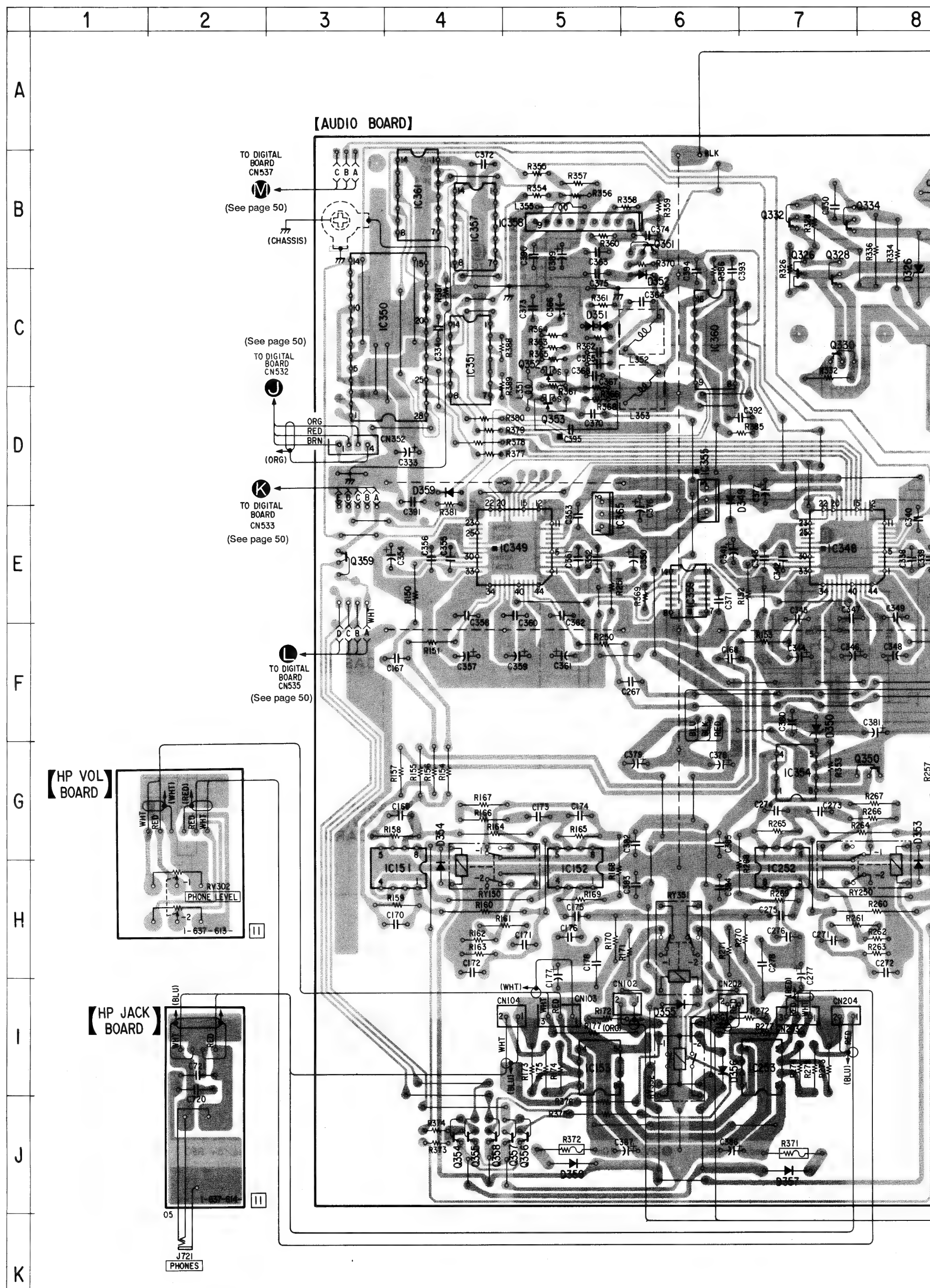


⑧ 2V/div 0.5msec/div REC



⑨ 2V/div 10msec/div REC

- See page 26 for note.



7

8

9

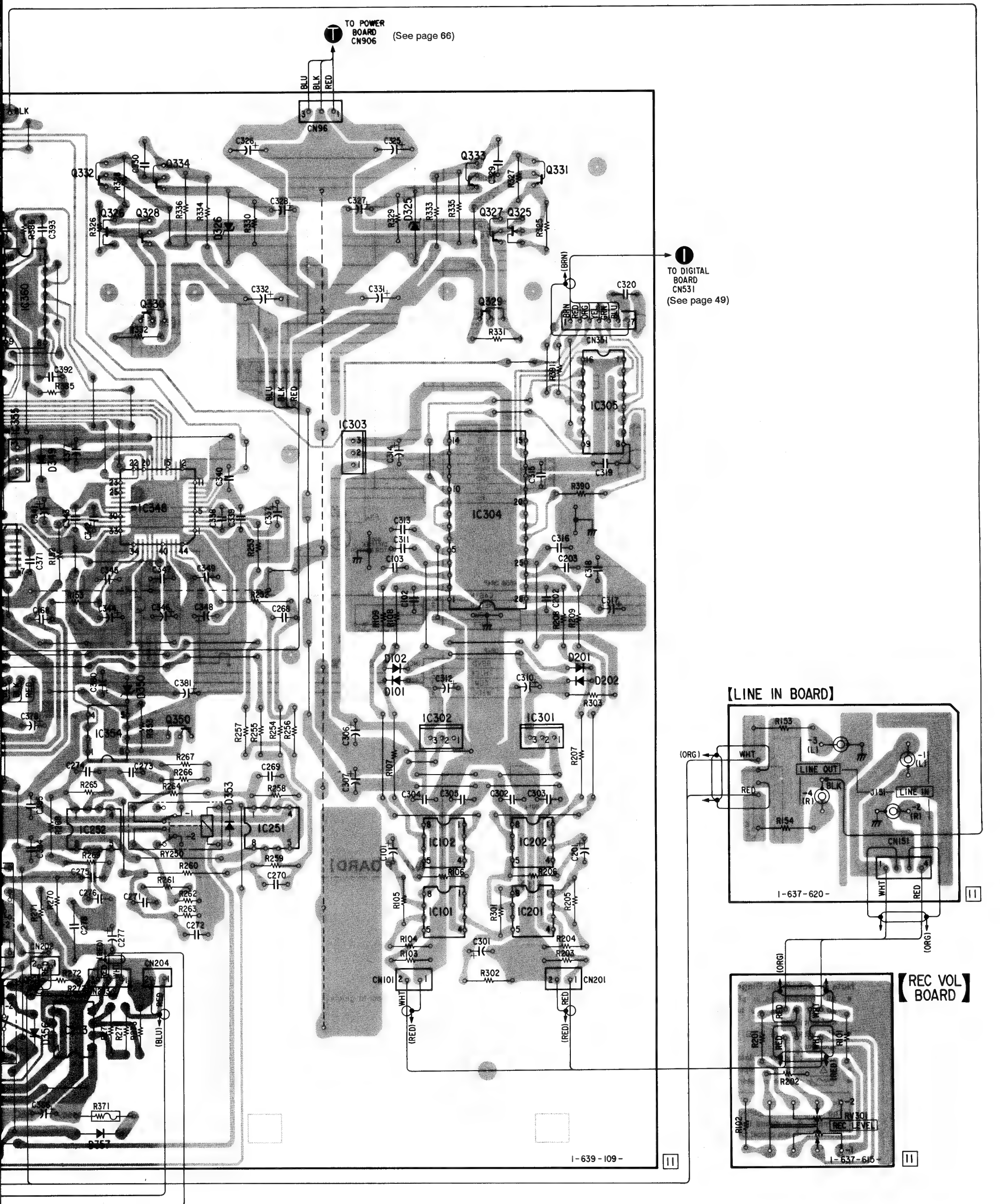
10

11

12

13

14

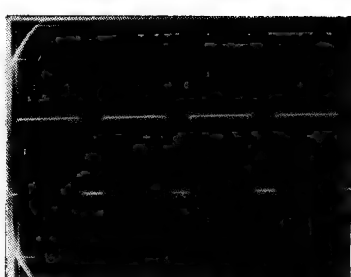


Microconductor Location

| No. | Location | Ref. No. | Location |
|-----|----------|----------|----------|
| 1 | F-9 | IC348 | E-7 |
| 2 | F-9 | IC349 | E-5 |
| 1 | F-11 | IC350 | C-3 |
| 2 | F-11 | IC351 | C-4 |
| 5 | B-10 | IC354 | G-7 |
| 6 | B-8 | IC355 | D-6 |
| 9 | D-6 | IC356 | E-5 |
| 0 | F-7 | IC357 | C-6 |
| 1 | C-5 | IC358 | B-5 |
| 2 | C-6 | IC359 | E-6 |
| 3 | H-8 | IC360 | C-6 |
| 4 | H-4 | IC361 | B-4 |
| 5 | I-6 | | |
| 6 | I-6 | Q325 | C-10 |
| 7 | J-7 | Q326 | B-7 |
| 8 | J-5 | Q327 | C-10 |
| 9 | D-4 | Q328 | B-7 |
| | | Q329 | C-10 |
| 1 | H-10 | Q330 | C-7 |
| 2 | H-10 | Q331 | B-11 |
| 1 | H-4 | Q332 | B-7 |
| 2 | H-5 | Q333 | B-10 |
| 3 | I-5 | Q334 | B-7 |
| 1 | H-10 | Q350 | G-8 |
| 2 | H-10 | Q351 | B-6 |
| 1 | H-8 | Q352 | C-5 |
| 2 | H-7 | Q353 | D-5 |
| 3 | I-7 | Q354 | J-4 |
| 1 | G-11 | Q355 | J-4 |
| 2 | G-10 | Q356 | J-5 |
| 3 | D-9 | Q357 | J-5 |
| 4 | E-10 | Q358 | J-4 |
| 5 | D-11 | Q359 | E-3 |



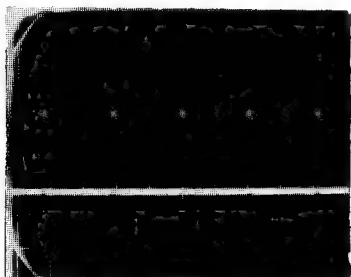
1 2V/div 0.2 μ sec/div REC/PB



10 2V/div 1 μ sec/div REC/PB



16 2V/div 2 μ sec/div REC



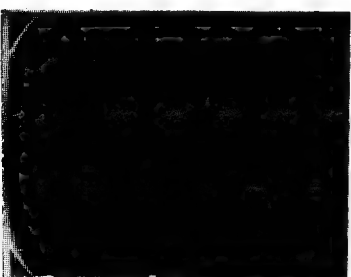
2 2V/div 10 μ sec/div REC



11 2V/div 1 μ sec/div REC/PB



17 2V/div 10 μ sec/div REC



3 2V/div 0.2 μ sec/div REC/PB



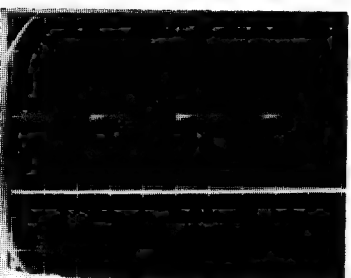
12 2V/div 1 μ sec/div REC



18 2V/div 10 μ sec/div REC



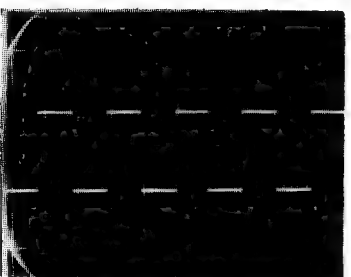
4 2V/div 0.1 μ sec/div REC/PB



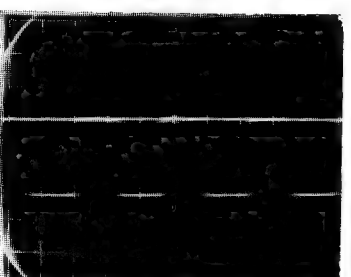
19 2V/div 1 μ sec/div PB



19 2V/div 10 μ sec/div REC



5 2V/div 10 μ sec/div REC



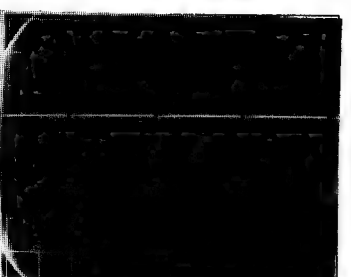
13 2V/div 1 μ sec/div REC



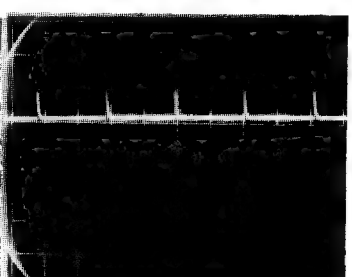
20 2V/div 10 μ sec/div REC



6 2V/div 0.1 μ sec/div REC/PB



14 2V/div 1 μ sec/div PB



21 1V/div 10 μ sec/div REC



7 2V/div 0.1 μ sec/div REC/PB



14 2V/div 0.2 μ sec/div REC



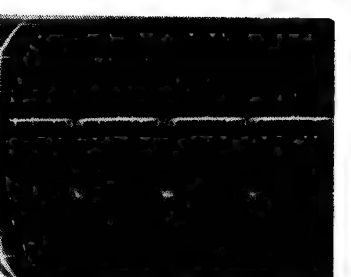
8 2V/div 0.1 μ sec/div REC



15 2V/div 1 μ sec/div REC

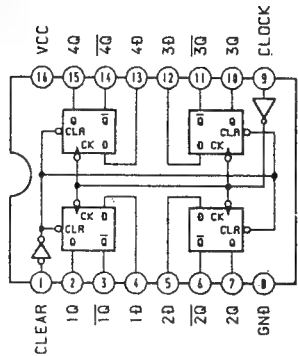


9 2V/div 1 μ sec/div REC/PB

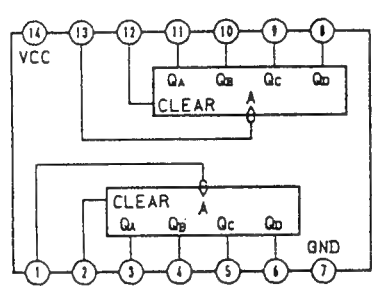


15 2V/div 1 μ sec/div PB

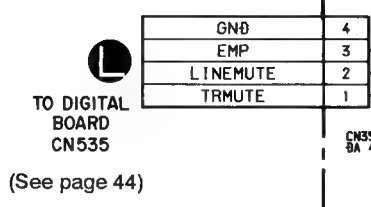
IC305 74HC175



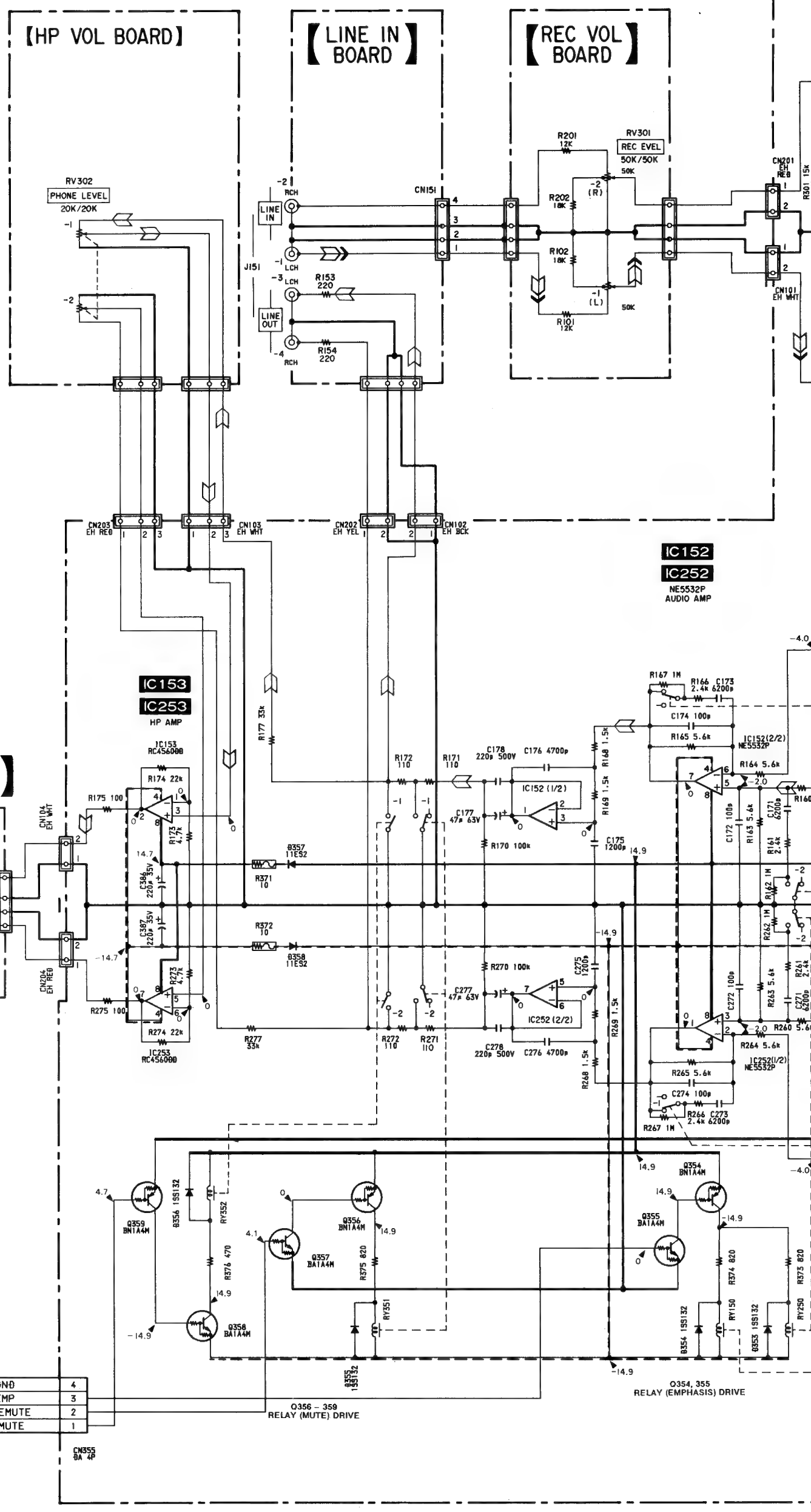
IC357 SN74HC393N



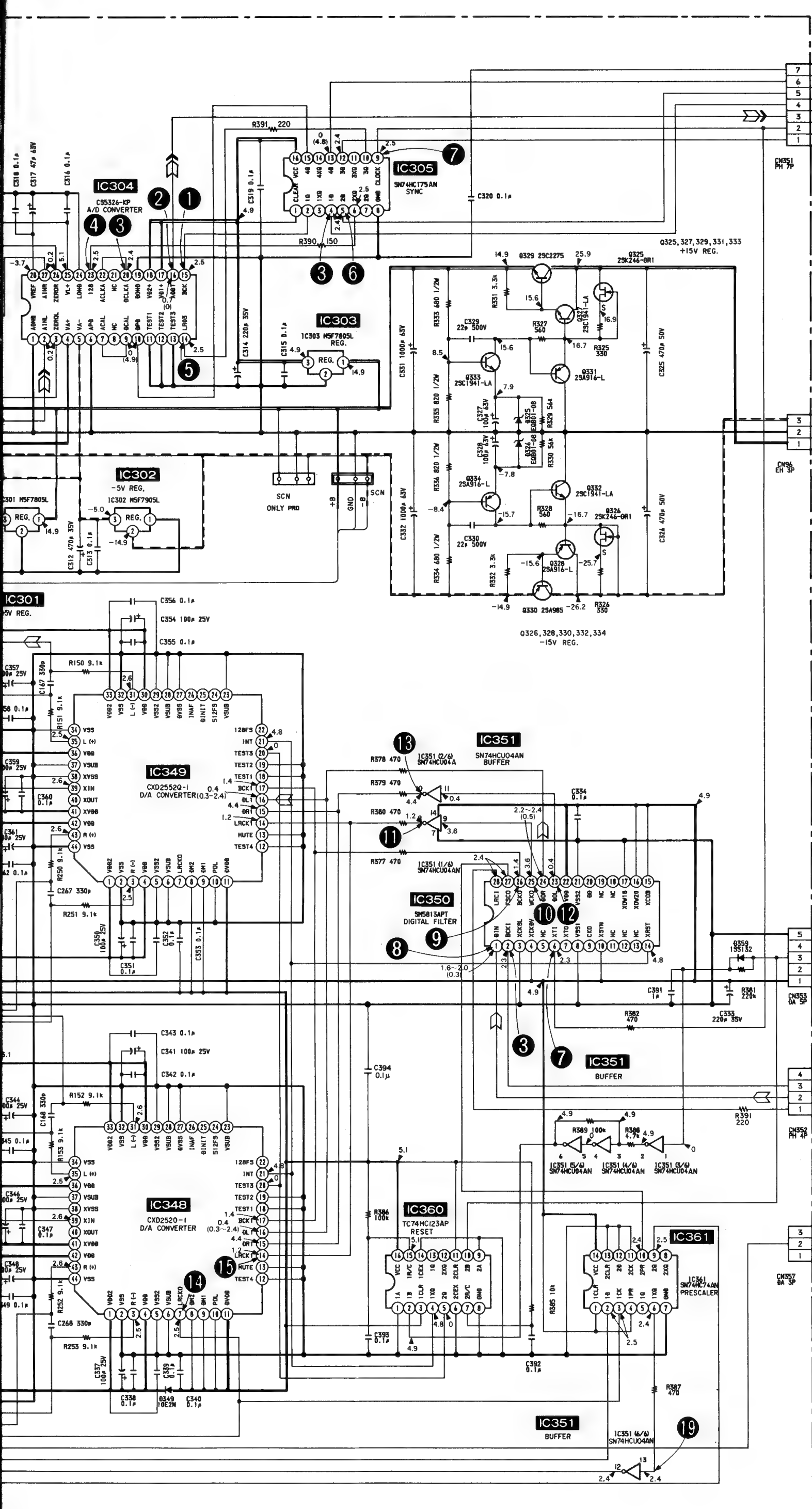
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P



(See page 44)







| | |
|---|--------|
| 7 | GNB |
| 6 | A0PB |
| 5 | X128FS |
| 4 | BCK |
| 3 | A0BT |
| 2 | X256FS |
| 1 | LR03 |

TO DIGITAL BOARD CN531
(See page 44)

| | |
|---|--------|
| 3 | -UNREG |
| 2 | GNB |
| 1 | +UNREG |

TO POWER BOARD
(See page 68)

| | |
|---|------------|
| 5 | GNB |
| 4 | SOFTMUT |
| 3 | MODE RESET |
| 2 | XRST |
| 1 | 01G-5V |

TO DIGITAL BOARD CN533
(See page 44)

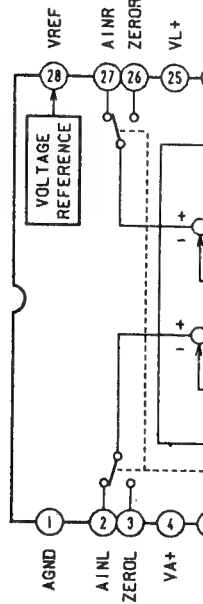
| | |
|---|------|
| 4 | GNB |
| 3 | XBCK |
| 2 | 0A0T |
| 1 | XLCK |

TO DIGITAL BOARD CN532
(See page 44)

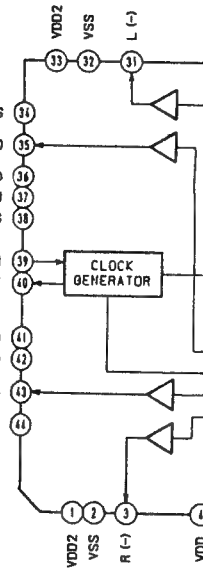
| | |
|---|-----|
| 3 | GNB |
| 2 | F0 |
| 1 | F1 |

TO DIGITAL BOARD CN537
(See page 44)

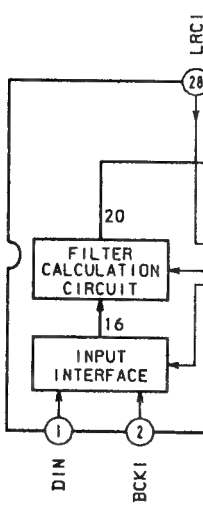
IC304 CS5326-KP



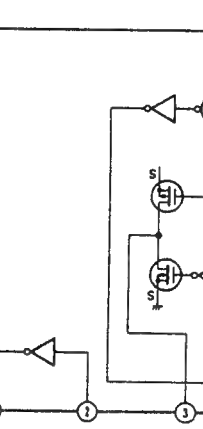
IC348 CXD2552-1

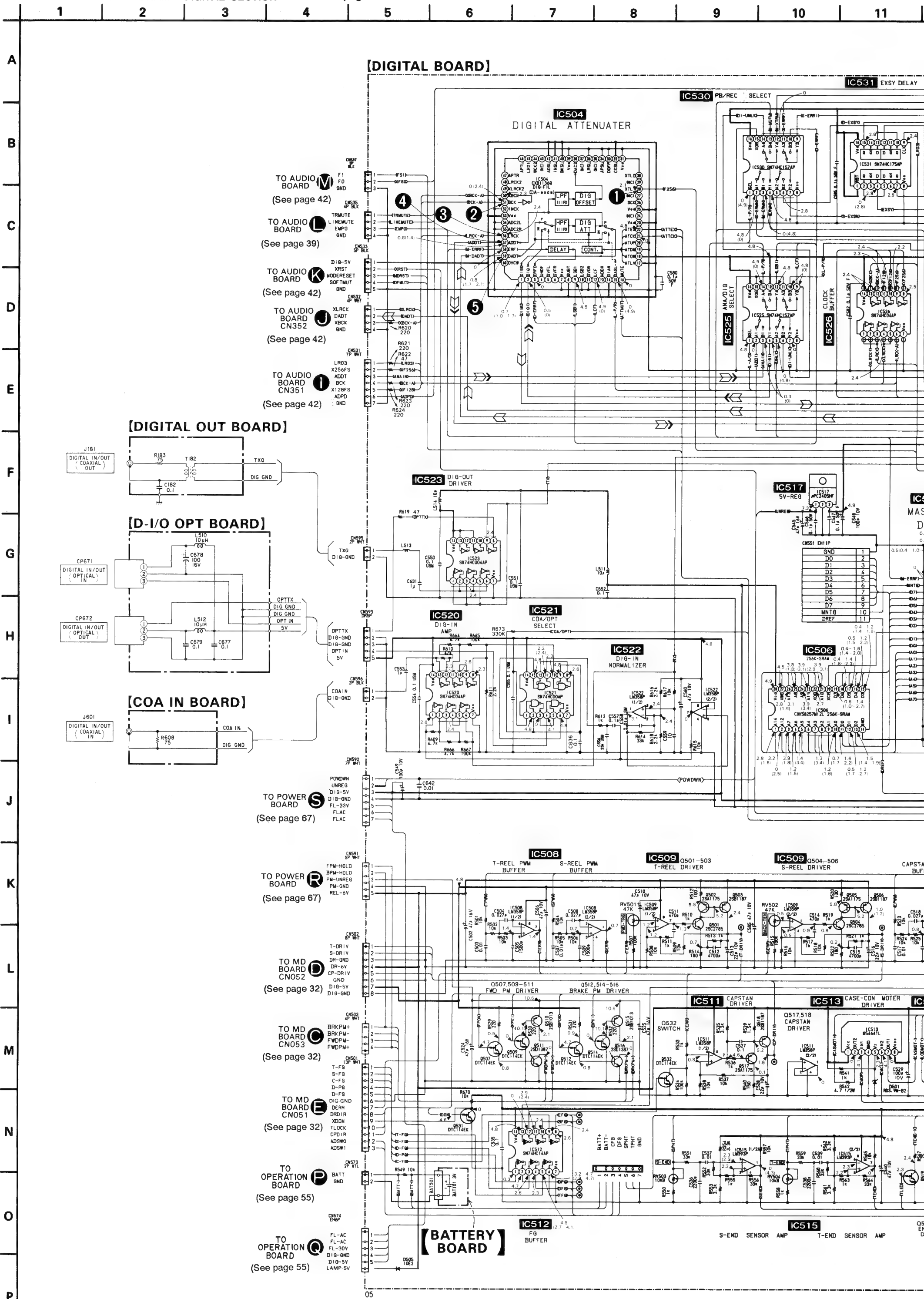


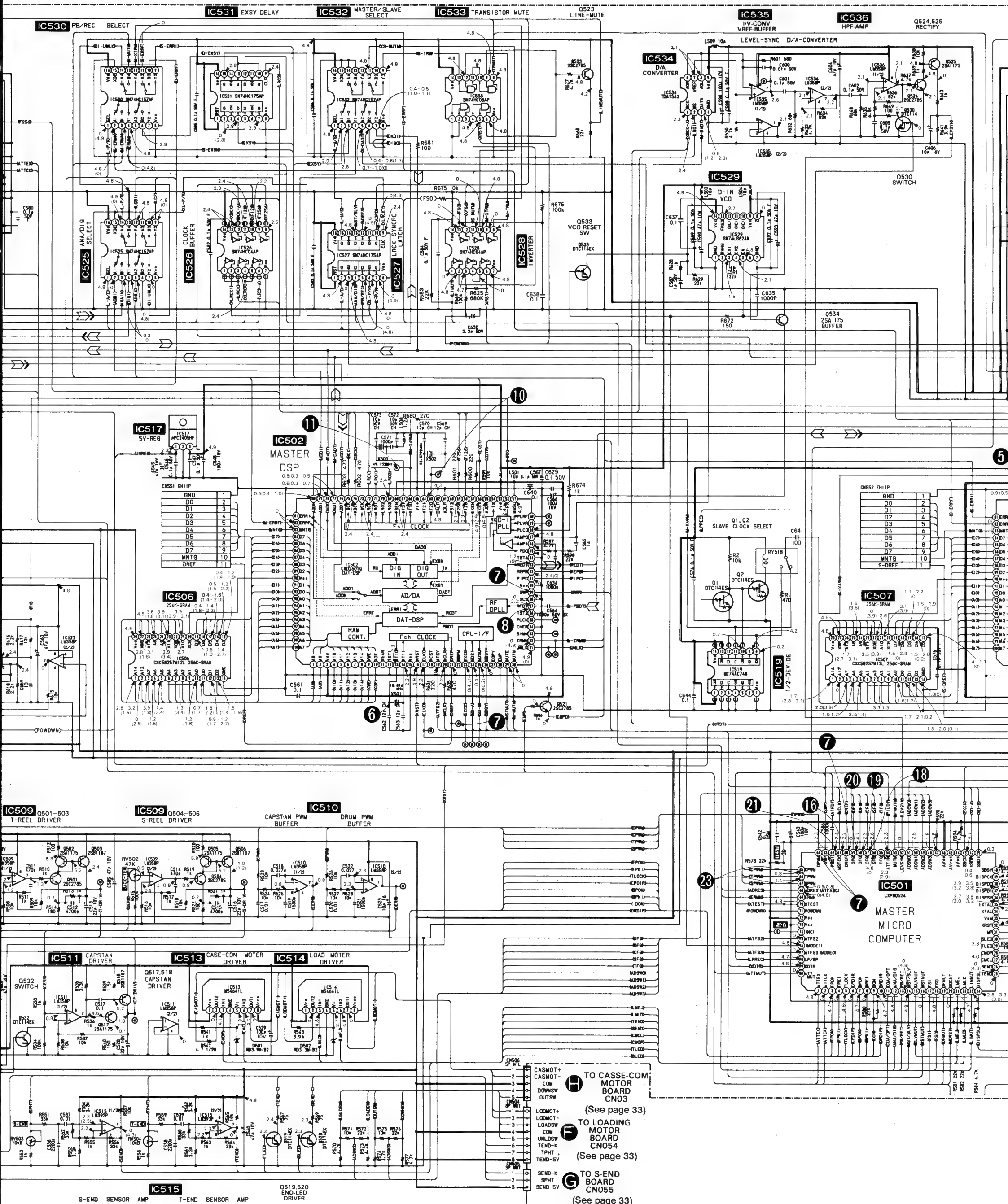
IC350 SM5813A

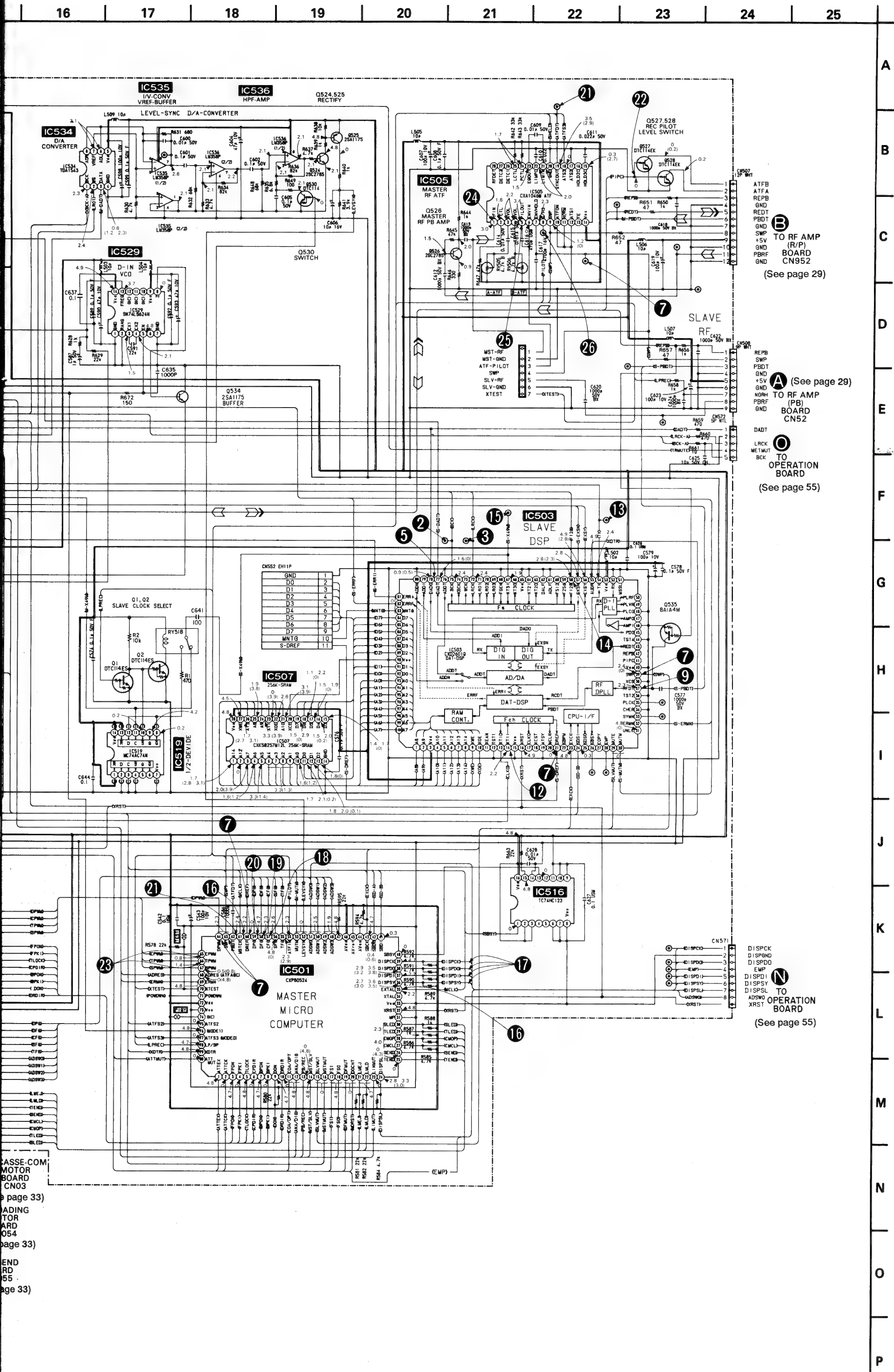


IC358 TC5081AF







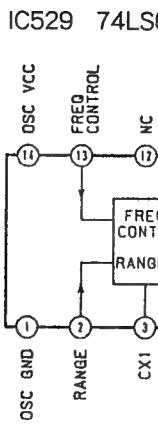
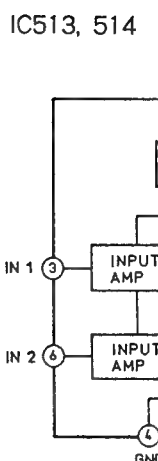
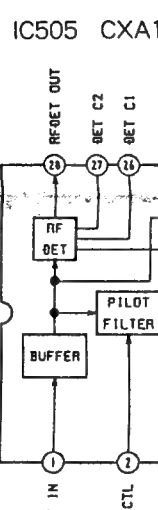
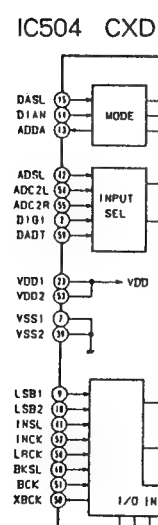


B TO RF AMP (R/P) BOARD CN952 (See page 29)

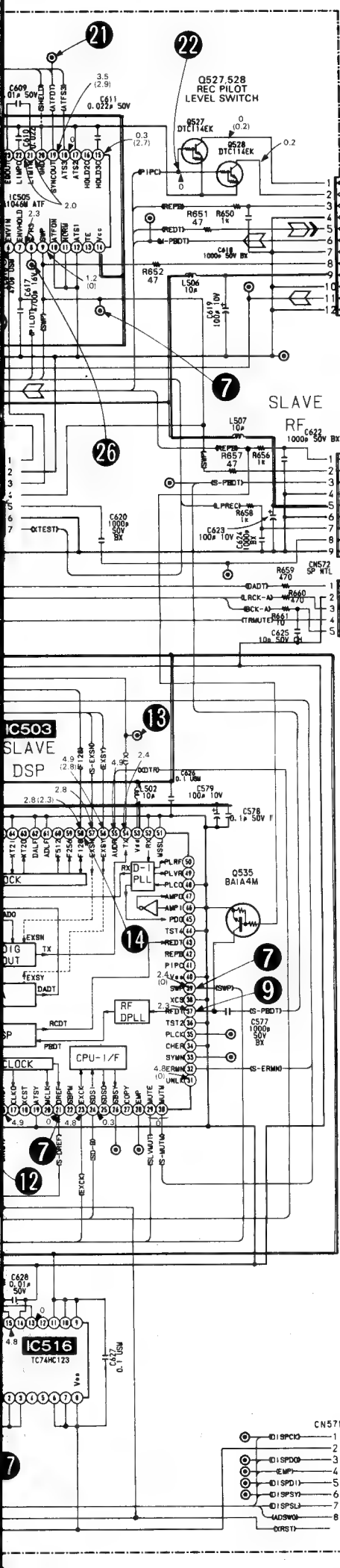
A TO RF AMP (PB) BOARD CN52 (See page 29)

O TO OPERATION BOARD (See page 55)

N TO OPERATION BOARD (See page 55)



ASSE.COM
MOTOR
BOARD
CN03
page 33)
ADING
TOR
ARD
054
page 33)
END
RD
55
page 33)



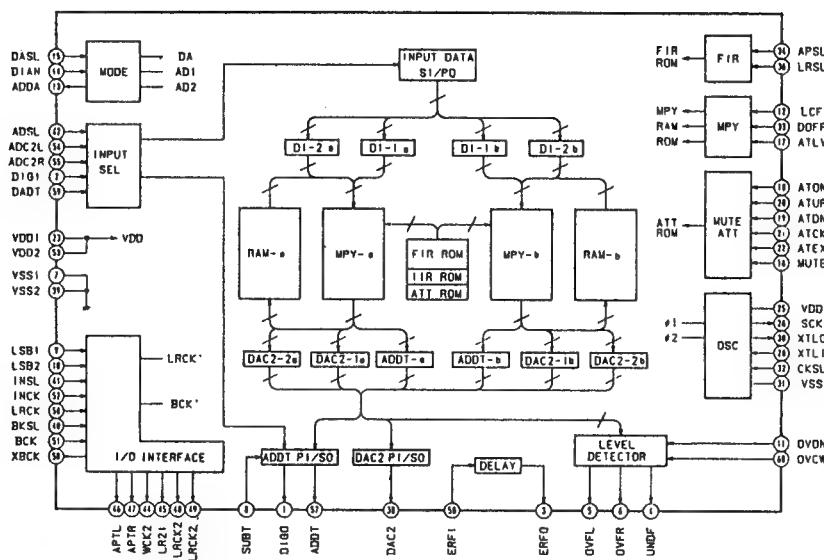
TO RF AMP
(R/P)
BOARD
CN952
(See page 29)

TO RF AMP
(P/B)
BOARD
CN52
(See page 29)

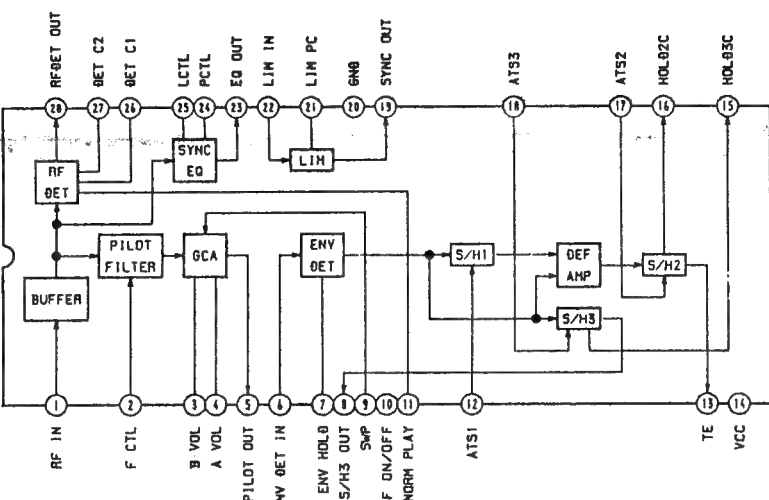
TO OPERATION
BOARD
(See page 55)

TO OPERATION
BOARD
(See page 55)

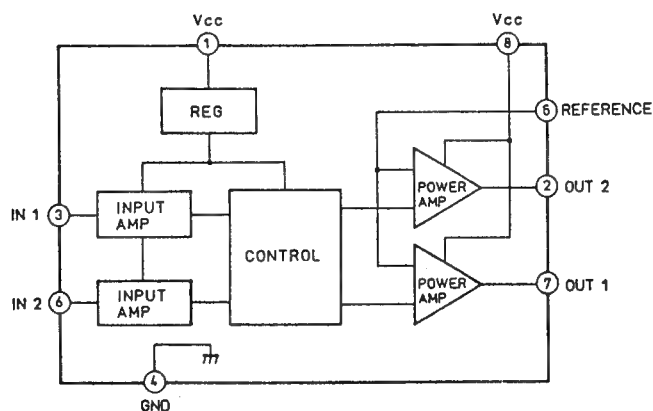
IC504 CXD1136Q



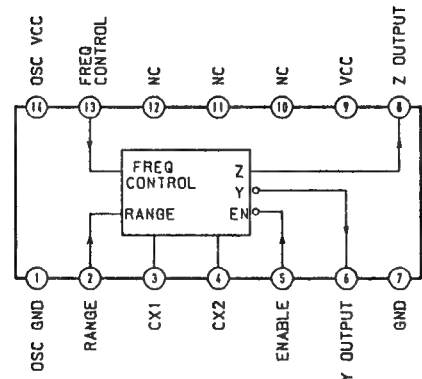
IC505 CXA1046M



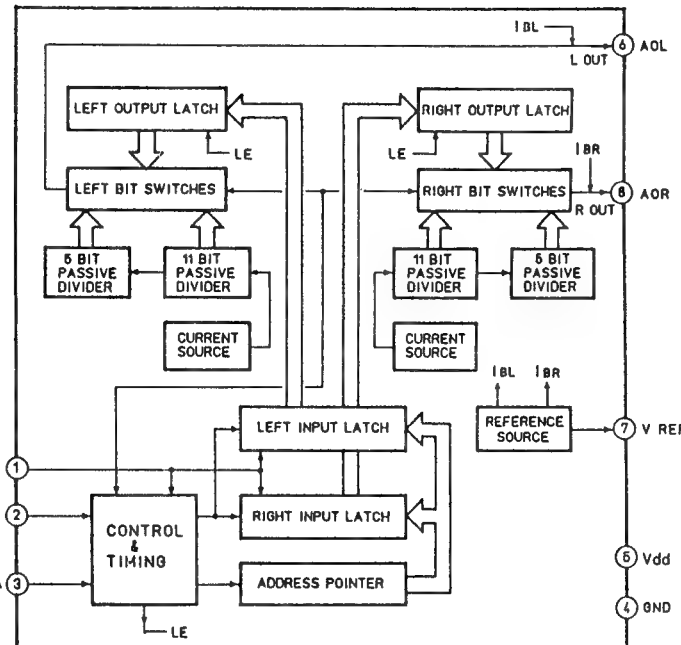
IC513, 514 M54641L



IC529 74LS624



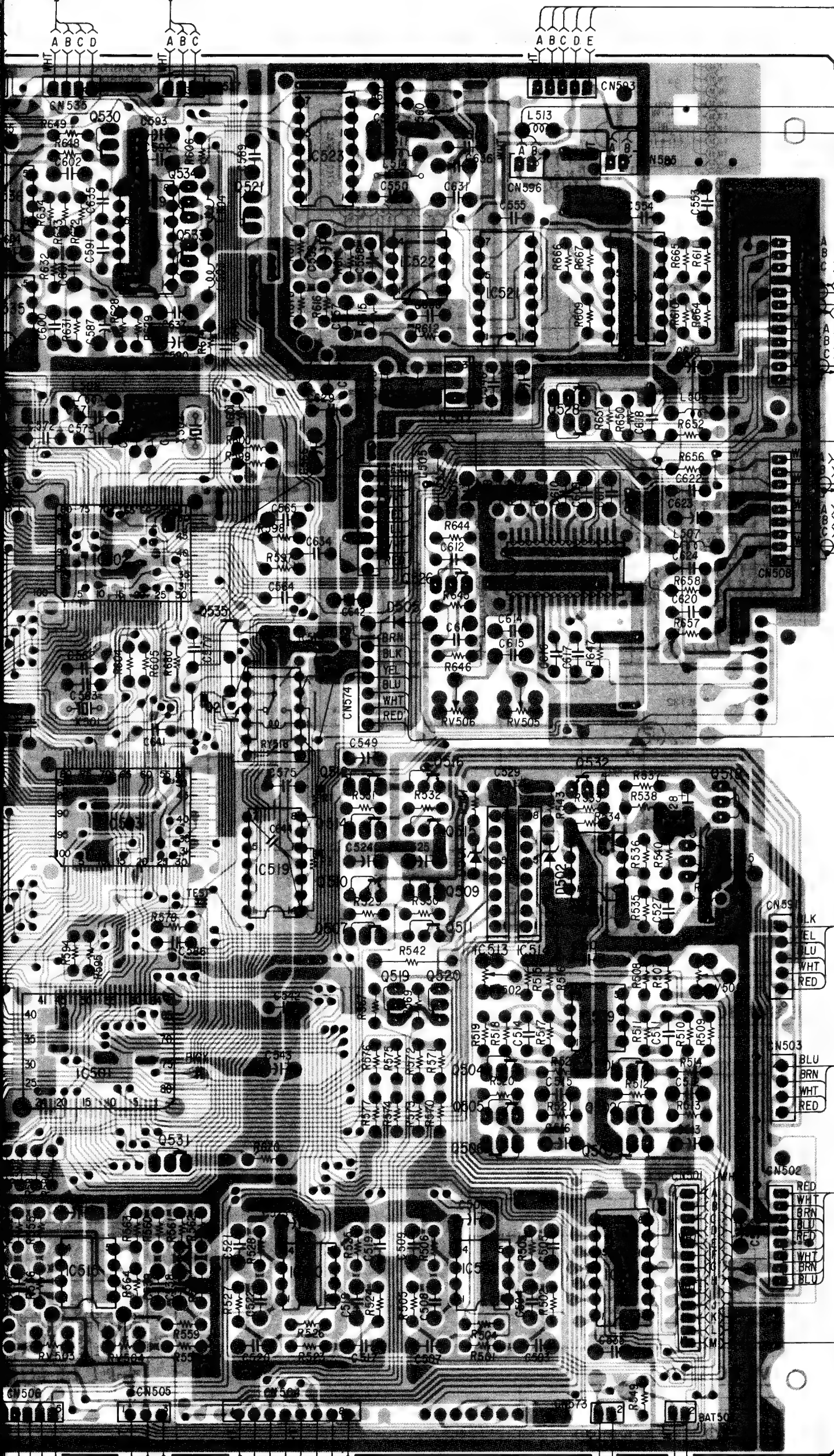
IC534 TDA1543



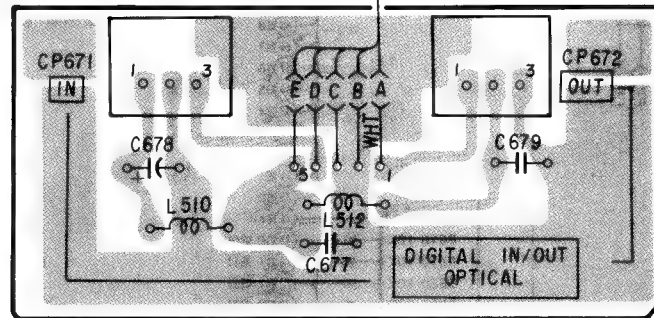


| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| D501 | G-7 | IC534 | C-4 |
| D502 | G-8 | IC535 | C-4 |
| D505 | E-7 | IC536 | B-4 |
| CP671 | B-11 | Q1 | E-6 |
| CP672 | B-12 | Q2 | F-6 |
| | | Q501 | H-8 |
| IC501 | H-5 | Q502 | H-8 |
| IC502 | E-5 | Q503 | I-8 |
| IC503 | F-5 | Q504 | H-8 |
| IC504 | C-2 | Q505 | H-8 |
| IC505 | E-8 | Q506 | I-8 |
| IC506 | E-4 | Q507 | G-7 |
| IC507 | G-4 | Q509 | G-7 |
| IC508 | I-7 | Q510 | G-7 |
| IC509 | H-8 | Q511 | G-7 |
| IC510 | I-6 | Q512 | F-7 |
| IC511 | G-8 | Q514 | F-7 |
| IC512 | I-8 | Q515 | F-7 |
| IC513 | G-8 | Q516 | F-7 |
| IC514 | G-8 | Q517 | G-9 |
| IC515 | I-5 | Q518 | F-9 |
| IC516 | H-4 | Q519 | H-7 |
| IC517 | D-7 | Q520 | H-7 |
| IC519 | G-6 | Q521 | B-6 |
| IC520 | C-8 | Q523 | G-3 |
| IC521 | C-8 | Q524 | B-4 |
| IC522 | C-7 | Q525 | B-3 |
| IC523 | B-6 | Q526 | E-7 |
| IC525 | D-2 | Q527 | D-8 |
| IC526 | E-3 | Q528 | D-8 |
| IC527 | G-2 | Q530 | B-5 |
| IC528 | G-3 | Q531 | I-5 |
| IC529 | C-5 | Q532 | F-8 |
| IC530 | D-3 | Q533 | C-6 |
| IC531 | E-2 | Q534 | B-6 |
| IC532 | F-2 | Q535 | E-6 |
| IC533 | F-3 | | |

(See page 34)
TO AUDIO BOARD
(See page 34)
TO AUDIO BOARD

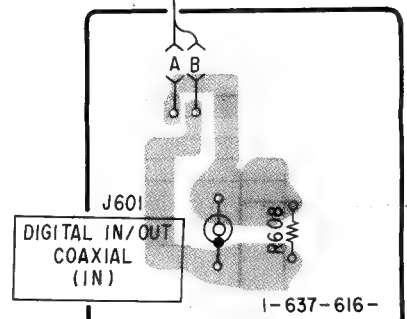


[D-I/O OPT BOARD]



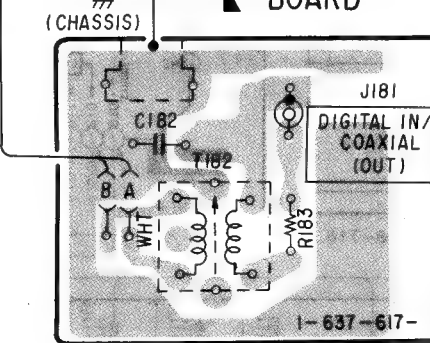
I-637-618-

[COA IN BOARD]



I-637-616-

[DIGITAL OUT BOARD]



I-637-617-

TO RF AMP
(REC / PB)
BOARD
CN952
(See page 27)
TO POWER
BOARD
(See page 65)

TO RF AMP (PB)
BOARD
CN52
(See page 27)

TO CONTROL SW
BOARD
CN754
(See page 59)

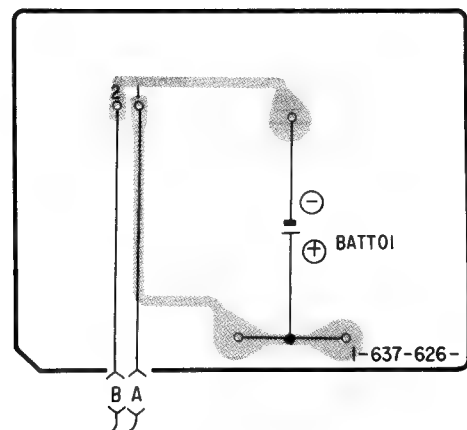
TO POWER
BOARD
(See page 65)

TO MD
BOARD
CN053
(See page 28)

TO MD
BOARD
CN052
(See page 28)

TO MD
BOARD
CN051
(See page 28)

[BATTERY BOARD]

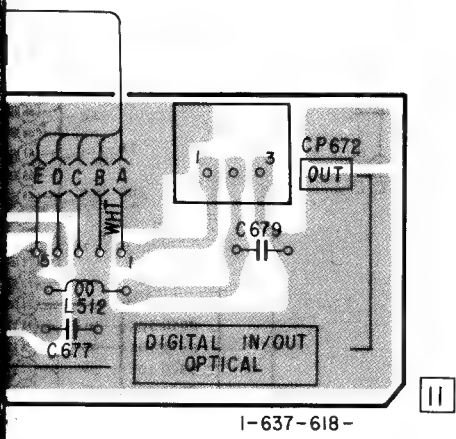


I-637-626-

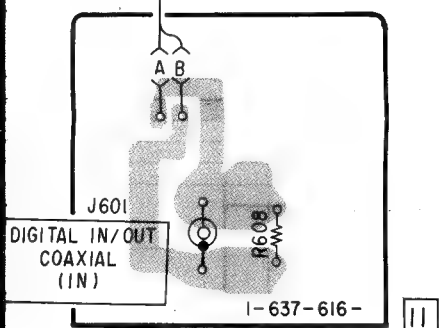
TO CAS-MOT
BOARD
CN03
(See page 28)
TO S-END
BOARD
CN055
(See page 28)
TO LOADING MOTOR
BOARD
CN054
(See page 27)
TO CONTROL SW
BOARD
CN753
(See page 60)

12

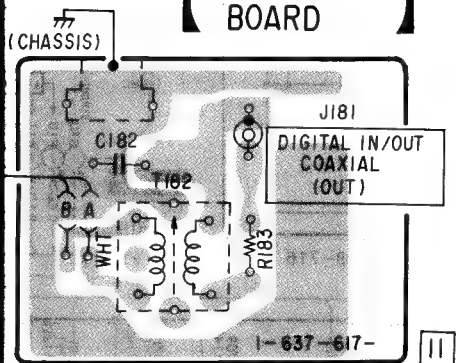
13



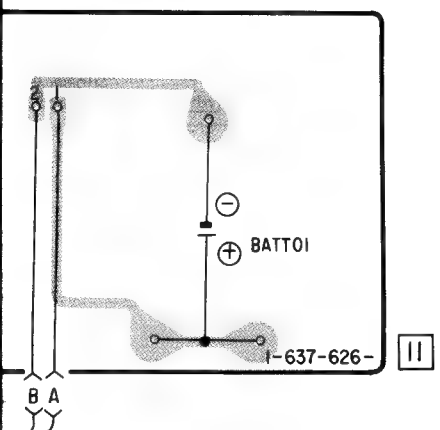
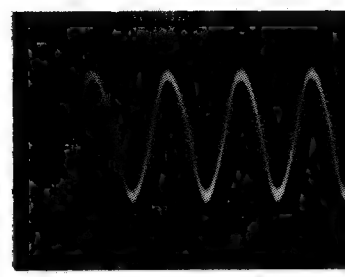
【COA IN BOARD】



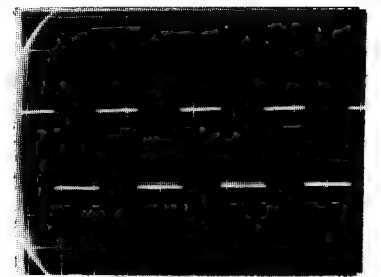
【DIGITAL OUT BOARD】



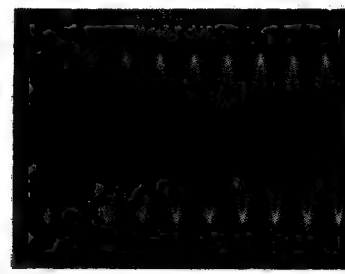
【BATTERY BOARD】

① 2V/div 0.1 μ sec/div REC/PB

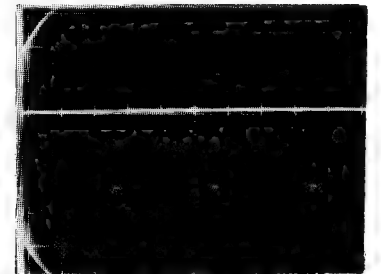
⑩ 10V/div 20nsec/div STOP



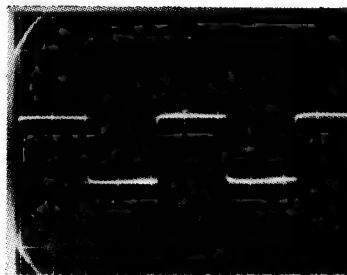
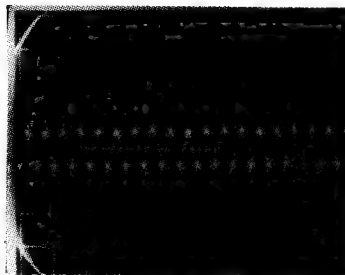
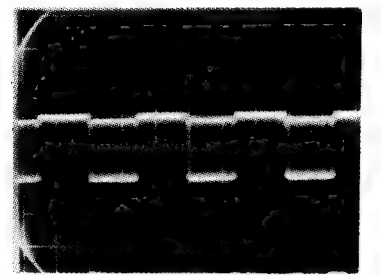
⑲ 2V/div 0.5msec/div REC

② 2V/div 0.2 μ sec/div REC

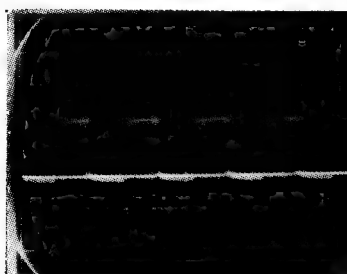
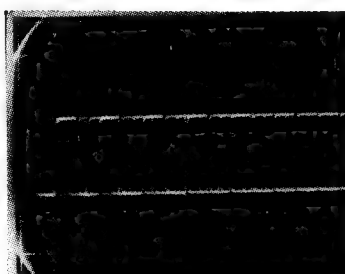
⑪ 10V/div 20nsec/div STOP



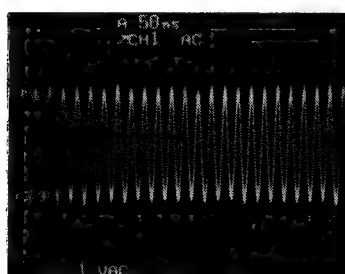
⑳ 2V/div 10msec/div REC

③ 2V/div 5 μ sec/div REC⑫ 50mV/div 1 μ sec/div REC

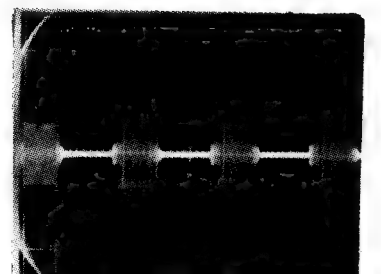
㉑ 1V/div 5msec/div PB

④ 2V/div 5 μ sec/div REC⑬ 2V/div 0.5 μ sec/div REC

㉒ 2V/div 5msec/div REC

⑤ 2V/div 5 μ sec/div REC⑭ 2V/div 0.1 μ sec/div REC㉓ 2V/div 10 μ sec/div PB⑥ 0.5V/div 0.1 μ sec/div REC

⑮ 10V/div 58nsec/div REC/PB



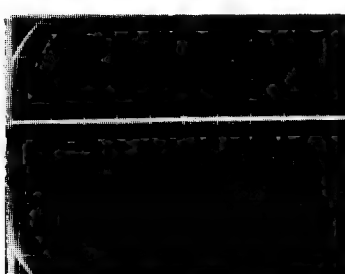
㉔ 0.2V/div 5msec/div PB

⑦ 2V/div 10 μ sec/div PB⑯ 2V/div 0.1 μ sec/div REC

㉕ 0.1V/div 5msec/div PB



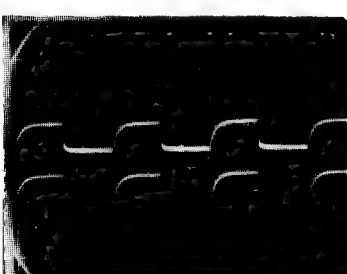
⑧ 2V/div 5msec/div REC



⑰ 2V/div 10msec/div REC



㉖ 0.5V/div 10msec/div PB



⑨ 0.5V/div 5msec/div REC

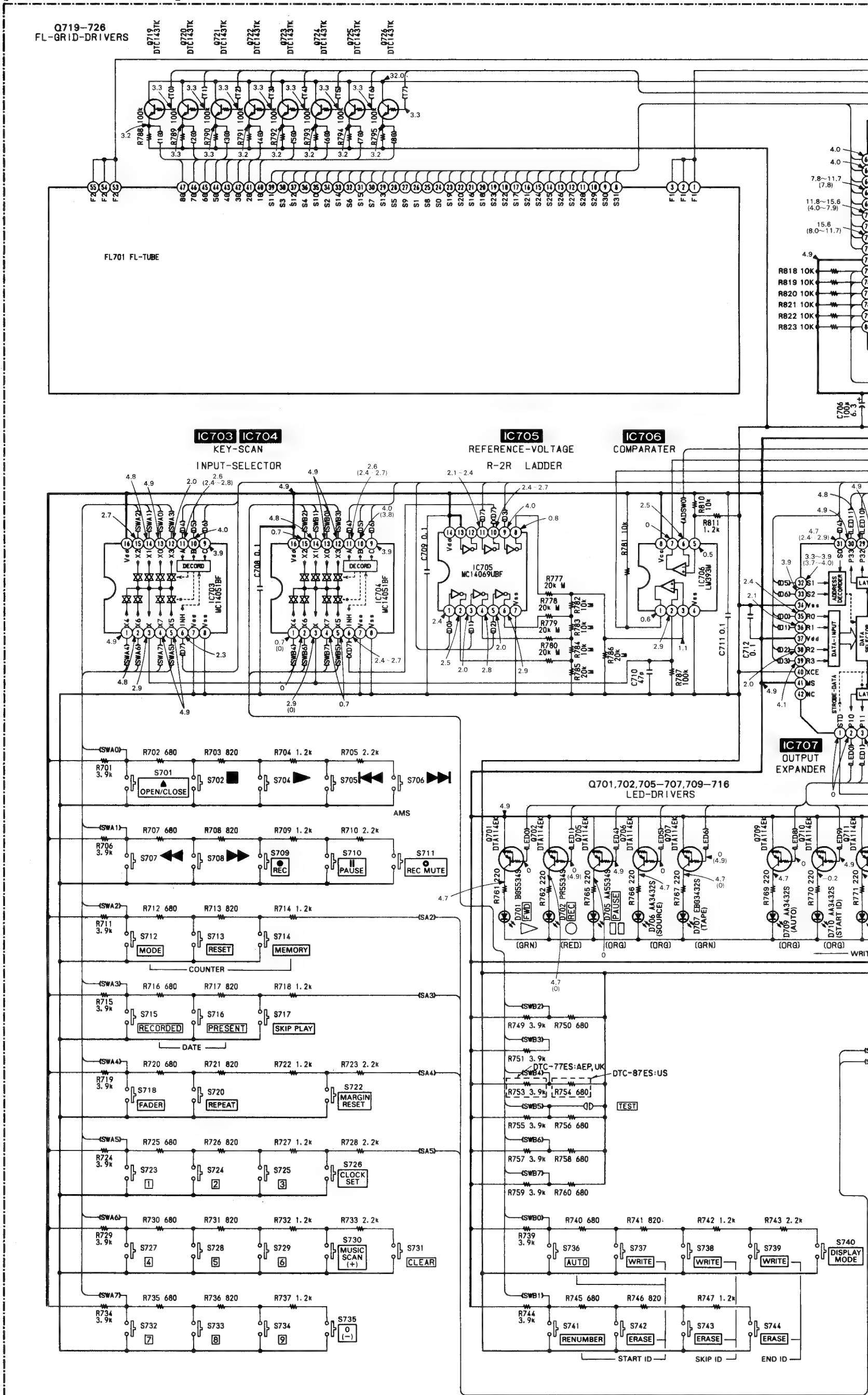


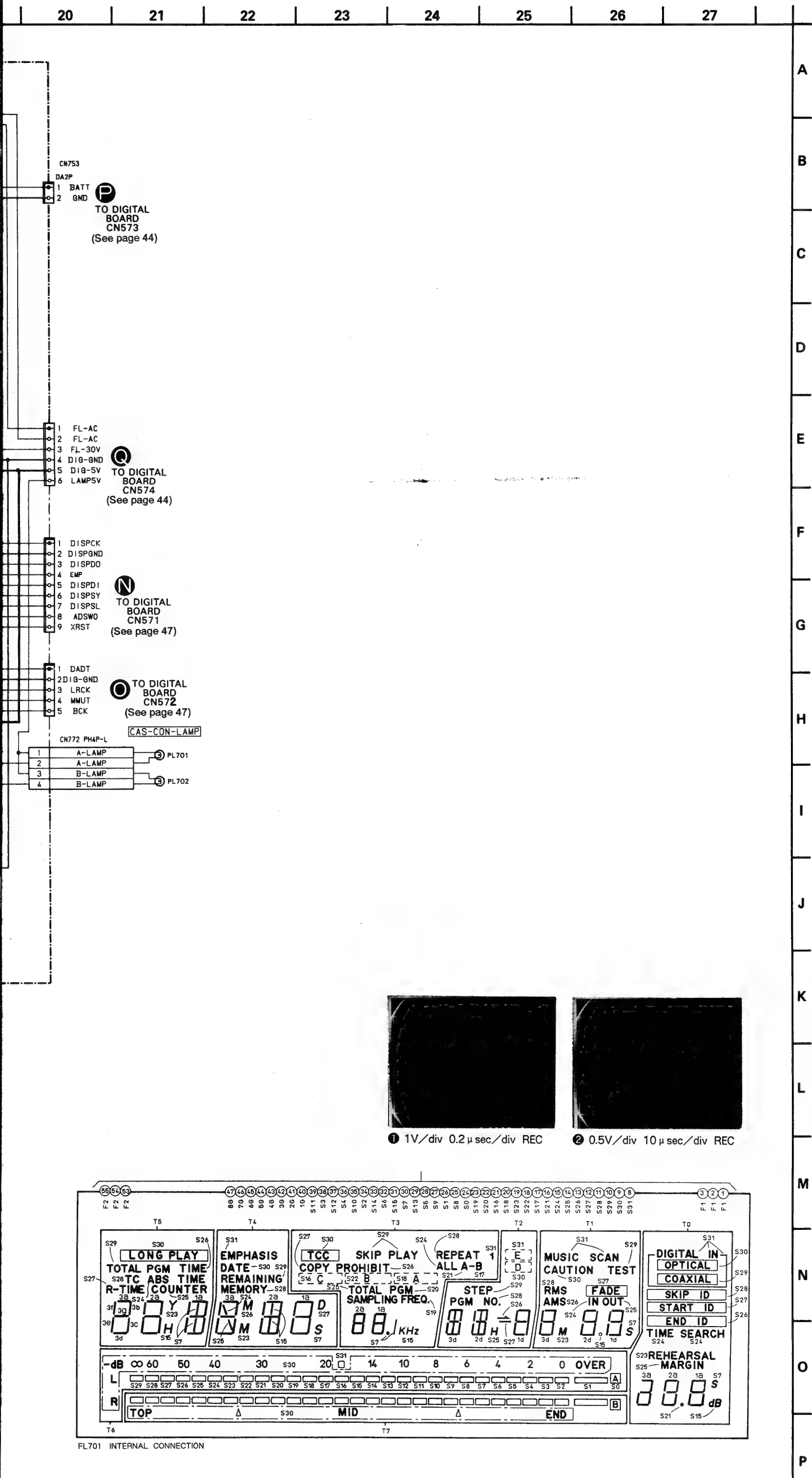
⑱ 2V/div 0.5msec/div REC

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

1 2 3 4 5 6 7 8 9 10 11

[CONTROL SW BOARD]

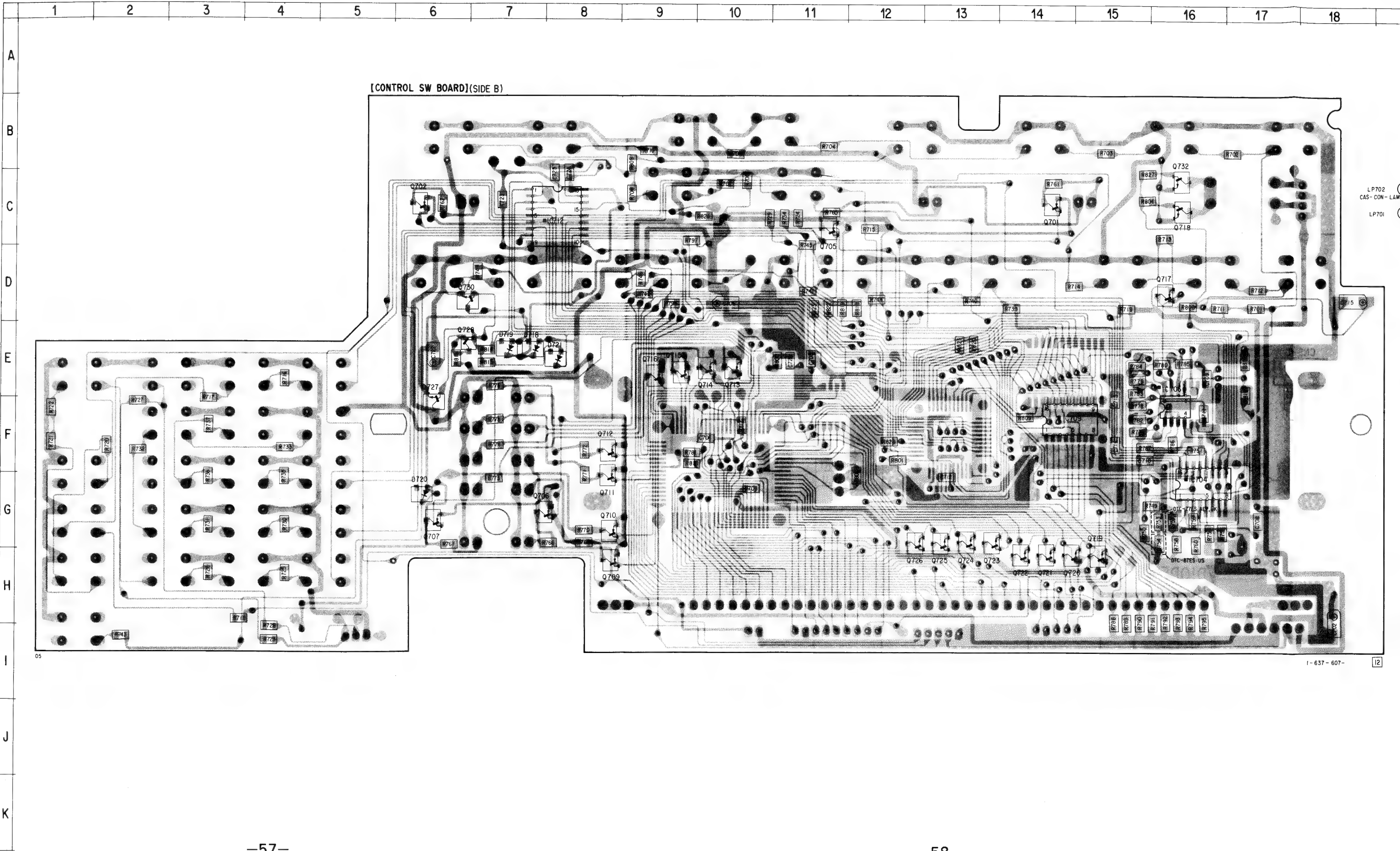




• Semiconductor Location

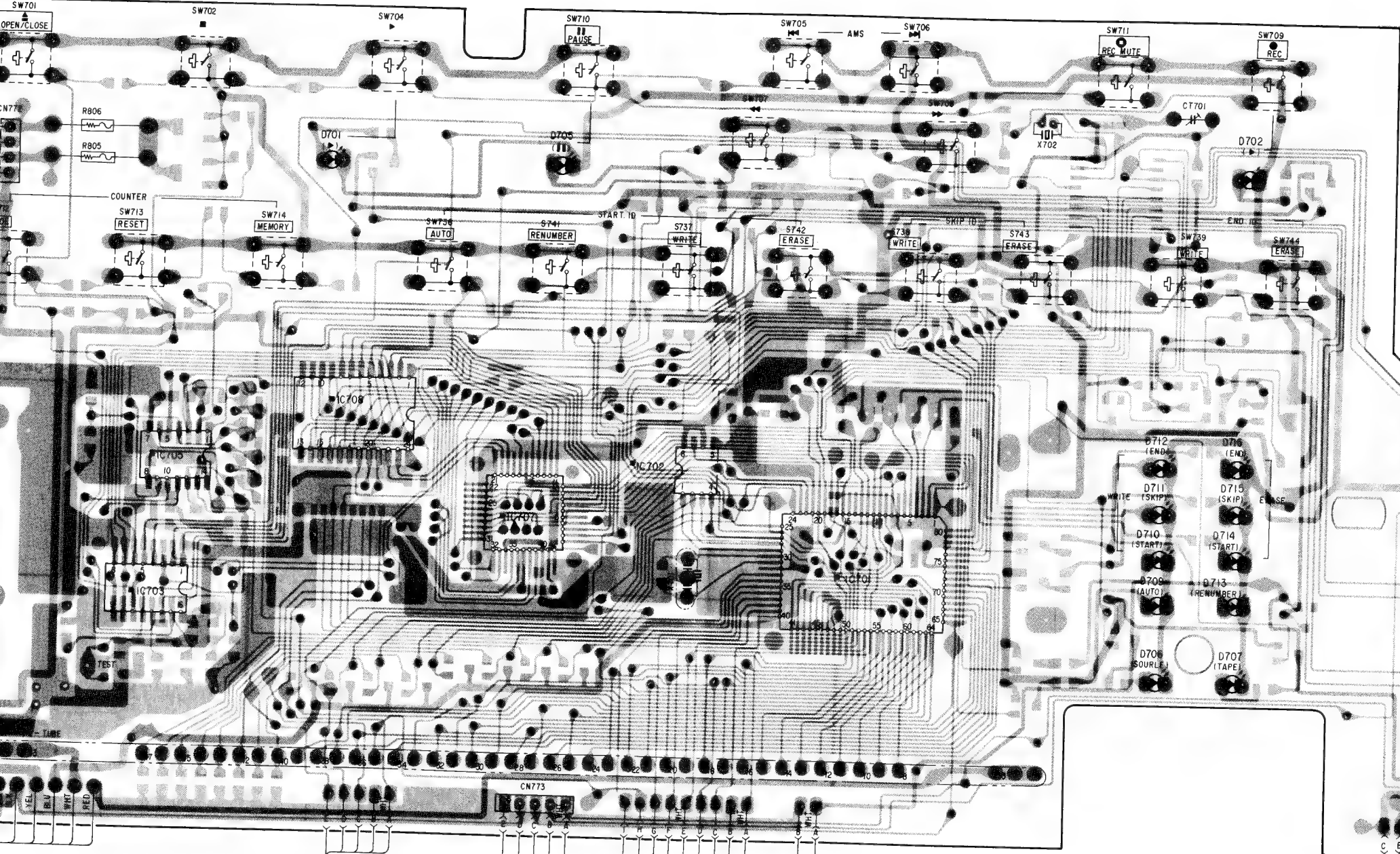
| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| D701 | C-23 | Q701 | C-14 |
| D702 | C-31 | Q702 | C-6 |
| D705 | C-25 | Q705 | C-11 |
| D706 | G-30 | Q706 | G-7 |
| D707 | G-31 | Q707 | G-6 |
| D709 | G-30 | Q709 | H-8 |
| D710 | F-30 | Q710 | G-8 |
| D711 | F-30 | Q711 | G-8 |
| D712 | E-30 | Q712 | F-8 |
| D713 | G-31 | Q713 | E-10 |
| D714 | F-31 | Q714 | E-10 |
| D715 | F-31 | Q715 | E-9 |
| D716 | E-31 | Q716 | E-9 |
| D718 | E-7 | Q717 | D-16 |
| D719 | E-7 | Q718 | C-16 |
| D720 | G-6 | Q719 | H-15 |
| D721 | E-8 | Q720 | H-14 |
| | | Q721 | H-14 |
| IC701 | F-28 | Q722 | H-14 |
| IC702 | F-26 | Q723 | G-13 |
| IC703 | G-21 | Q724 | G-13 |
| IC704 | G-16 | Q725 | G-13 |
| IC705 | F-21 | Q726 | G-12 |
| IC706 | F-16 | Q727 | F-6 |
| IC707 | F-25 | Q728 | E-6 |
| IC708 | E-23 | Q730 | D-6 |
| IC709 | F-14 | Q732 | C-16 |
| IC711 | B-34 | | |
| IC712 | C-8 | | |

• See page 26 for note.

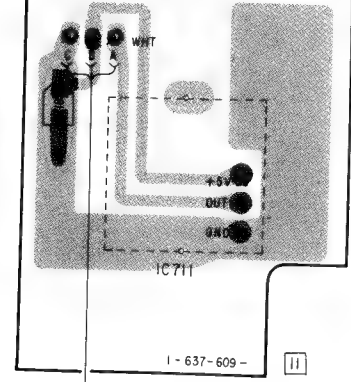


20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37

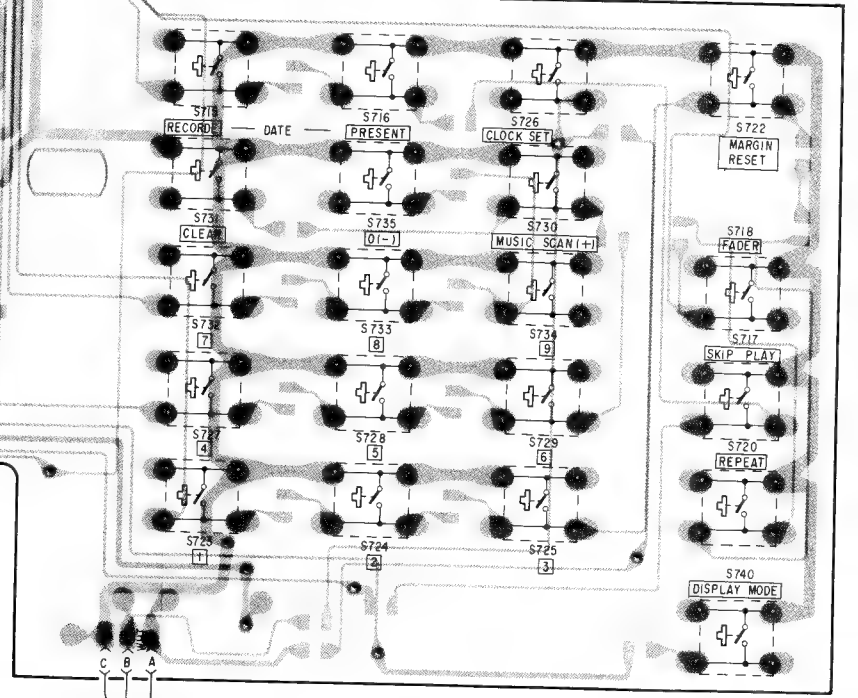
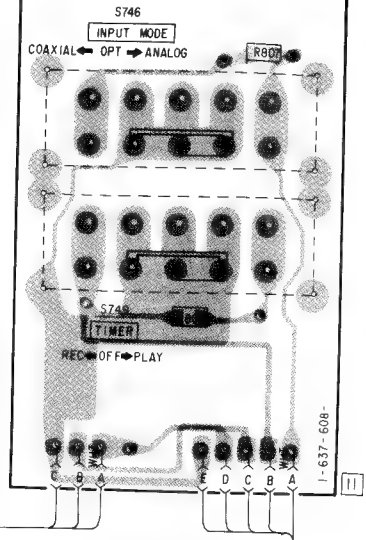
CONTROL SW BOARD (SIDE A)



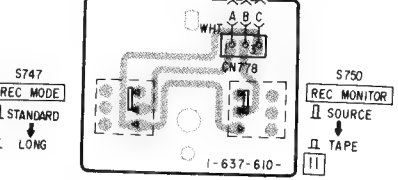
[OPTICAL RECEIVE BOARD]



[SLIDE SW BOARD]



[PUSH SW BOARD]



TO DIGITAL BOARD CN574 (See page 51)

TO DIGITAL BOARD CN572 (See page 49)

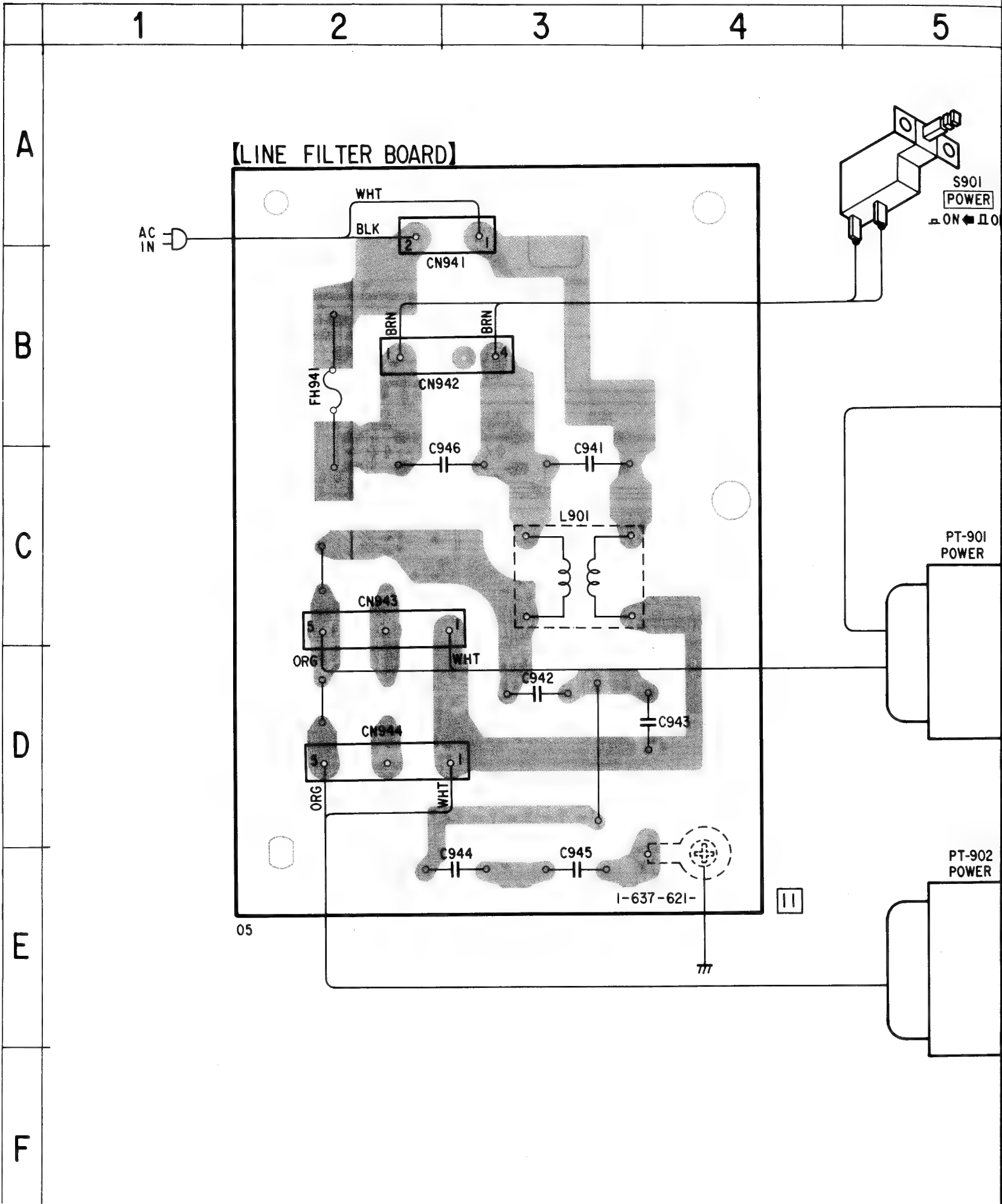
TO DIGITAL BOARD CN571 (See page 50)

TO DIGITAL BOARD CN573 (See page 50)

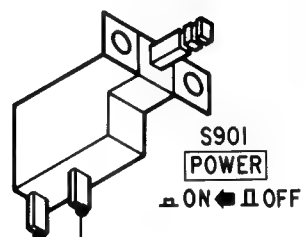
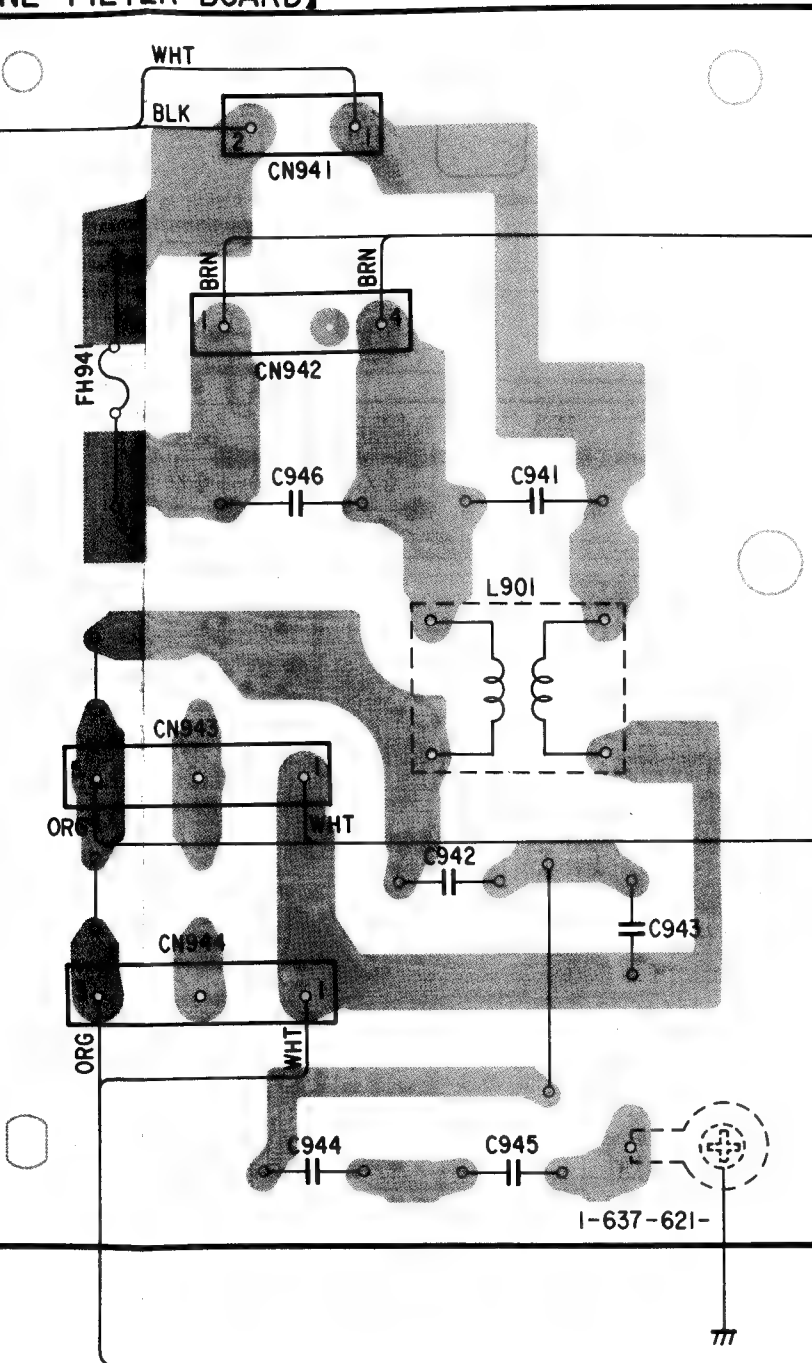
• See page 26 for note.

• Semiconductor Location

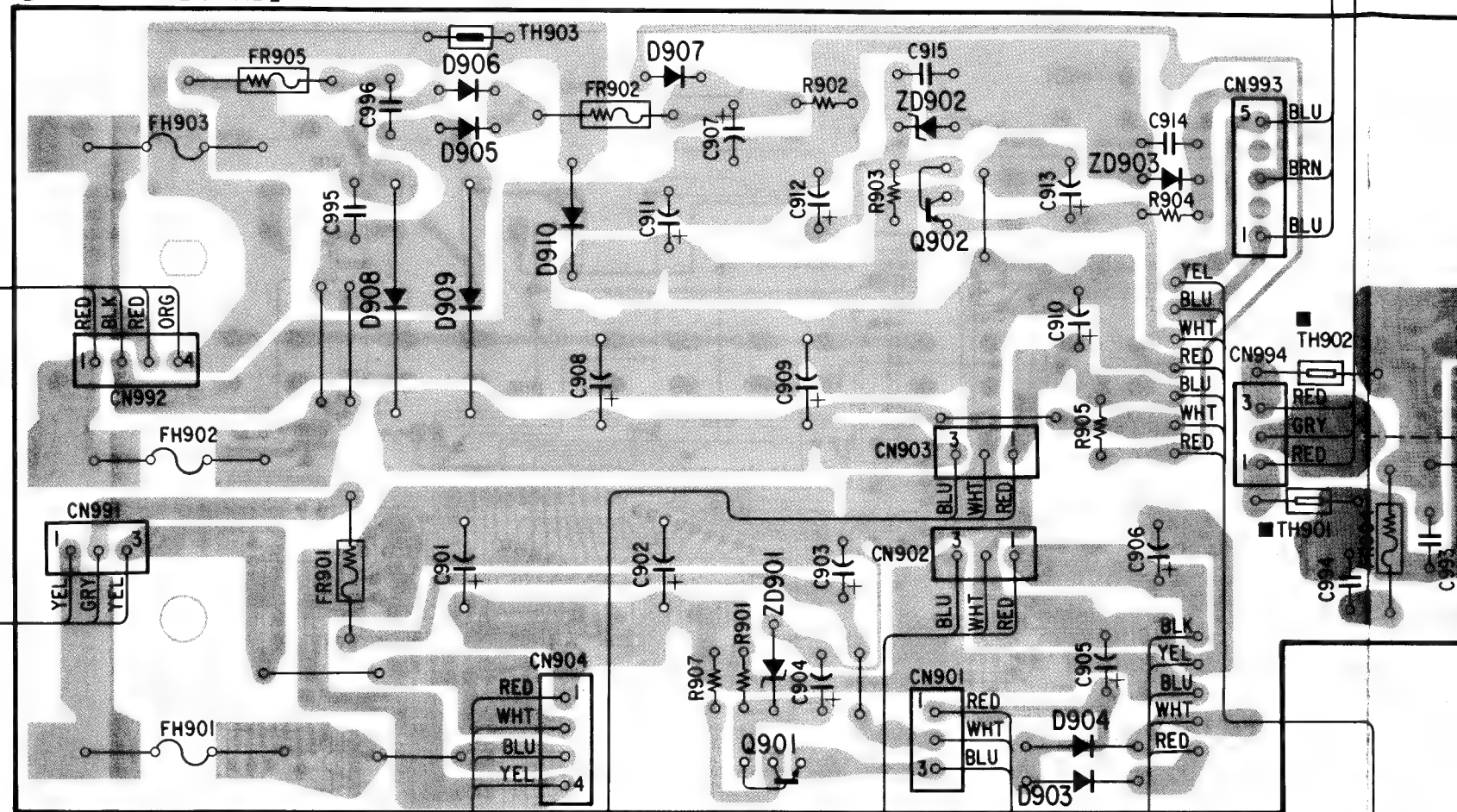
| Ref. No. | Location |
|----------|----------|
| D901 | E-7 |
| D903 | D-10 |
| D904 | D-10 |
| D905 | B-8 |
| D906 | B-8 |
| D907 | B-8 |
| D908 | B-7 |
| D909 | B-8 |
| D910 | B-8 |
| D991 | C-11 |
| D992 | C-11 |
| ZD901 | D-9 |
| ZD902 | B-9 |
| ZD903 | B-10 |
| IC901 | F-10 |
| IC902 | F-9 |
| Q901 | D-9 |
| Q902 | B-9 |
| Q931 | F-11 |



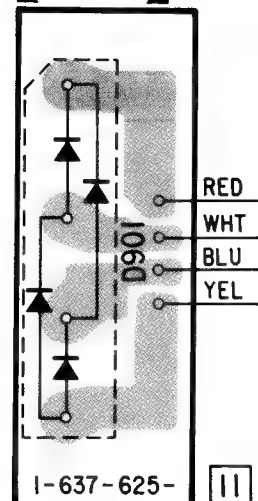
NE FILTER BOARD]

PT-901
POWERPT-902
POWER

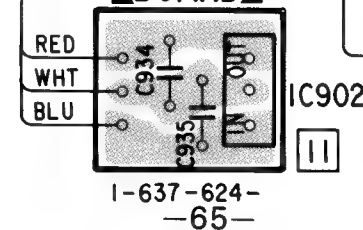
[POWER BOARD]



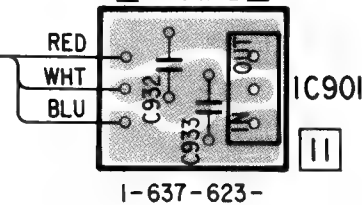
[DIODE BOARD]



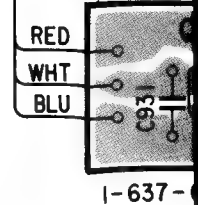
[TR-C BOARD]



[TR-B BOARD]



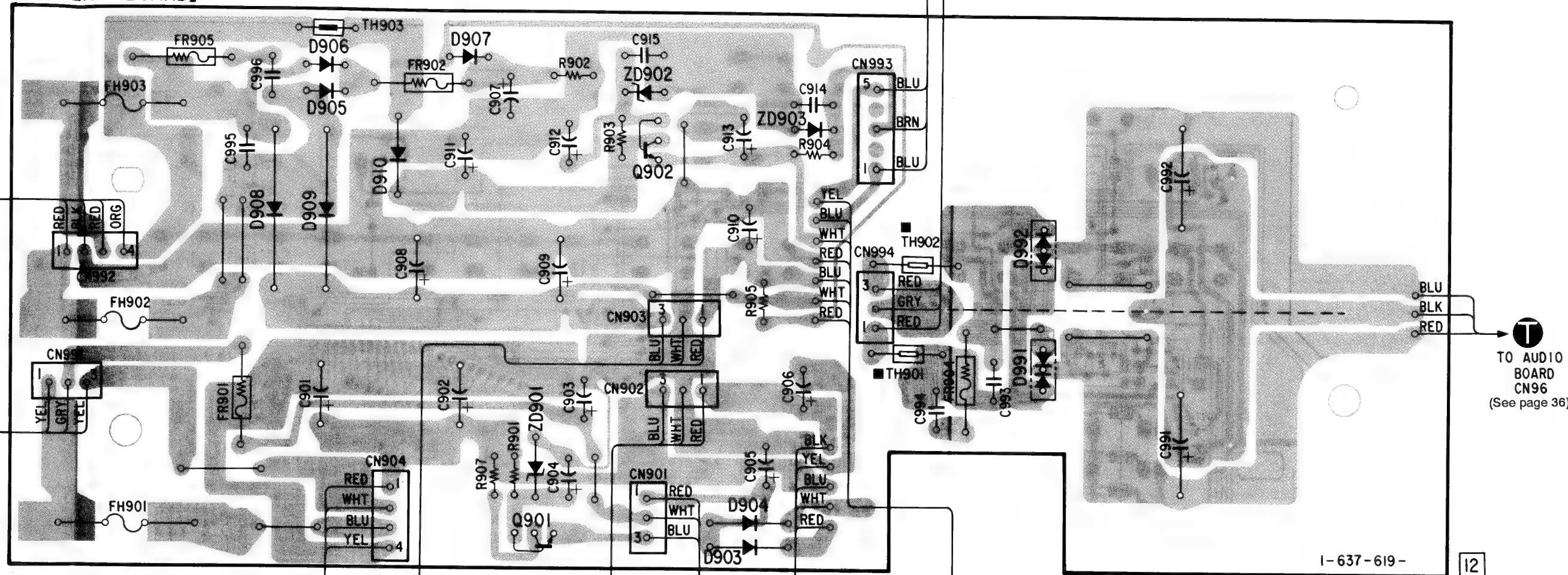
[TR-BOA]



TO DIGITAL BOARD
CN591
(See page 51)

TO DIGITAL BOARD
CN592
(See page 51)

[POWER BOARD]

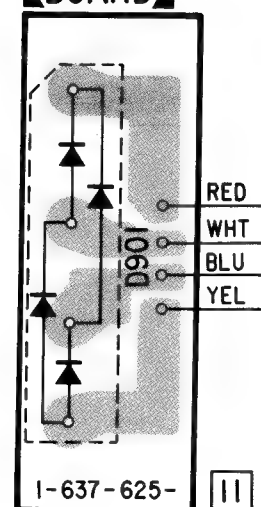


I-637-619-

12

TO AUDIO BOARD
CN96
(See page 36)

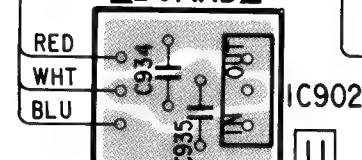
[DIODE BOARD]



I-637-625-

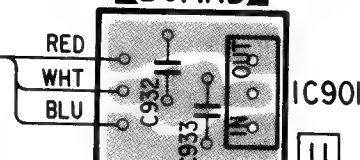
11

[TR-C BOARD]

I-637-624-
-65-

11

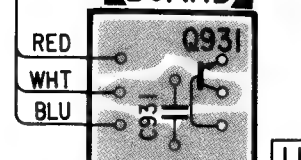
[TR-B BOARD]



I-637-623-

11

[TR-A BOARD]

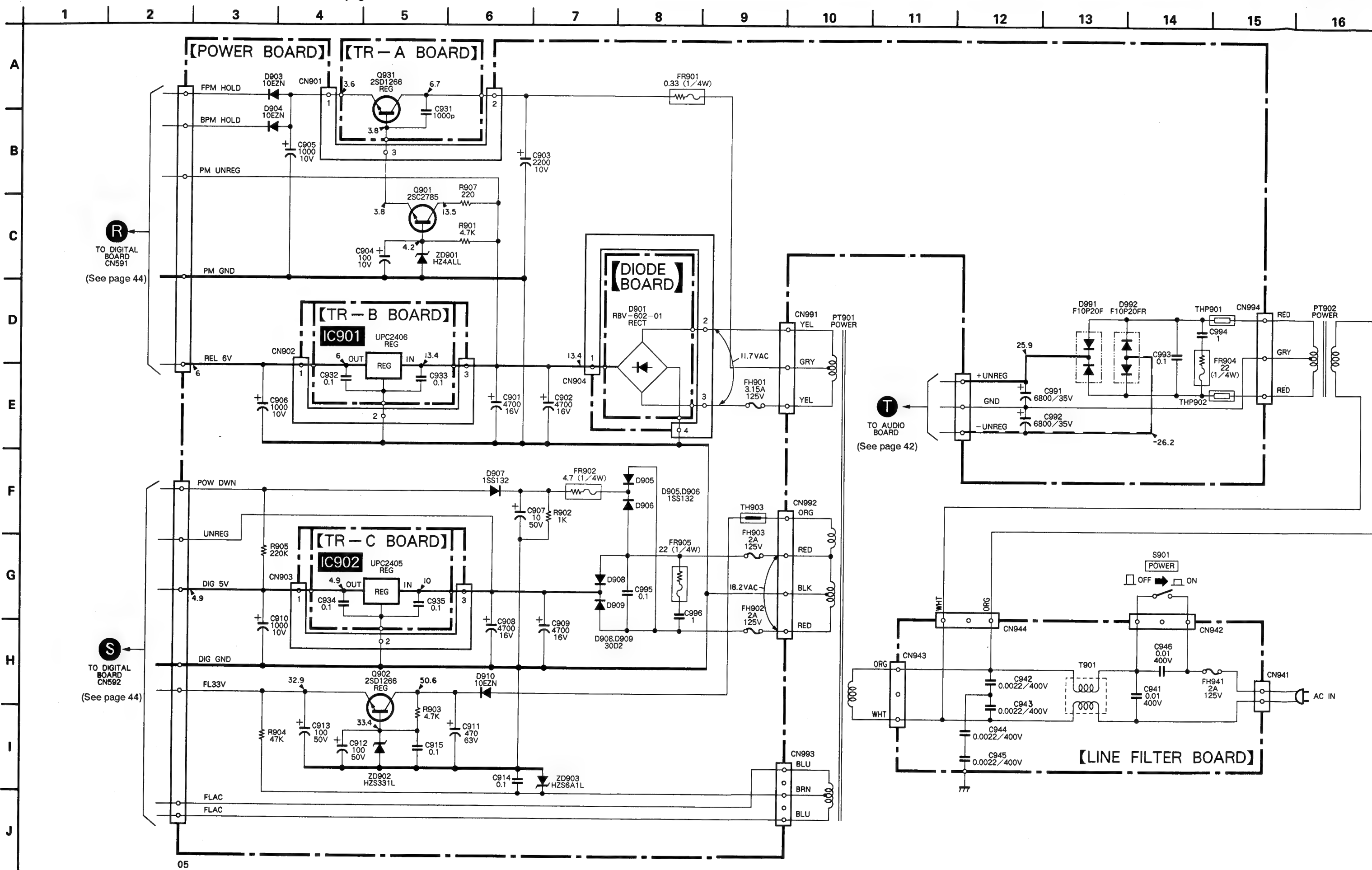


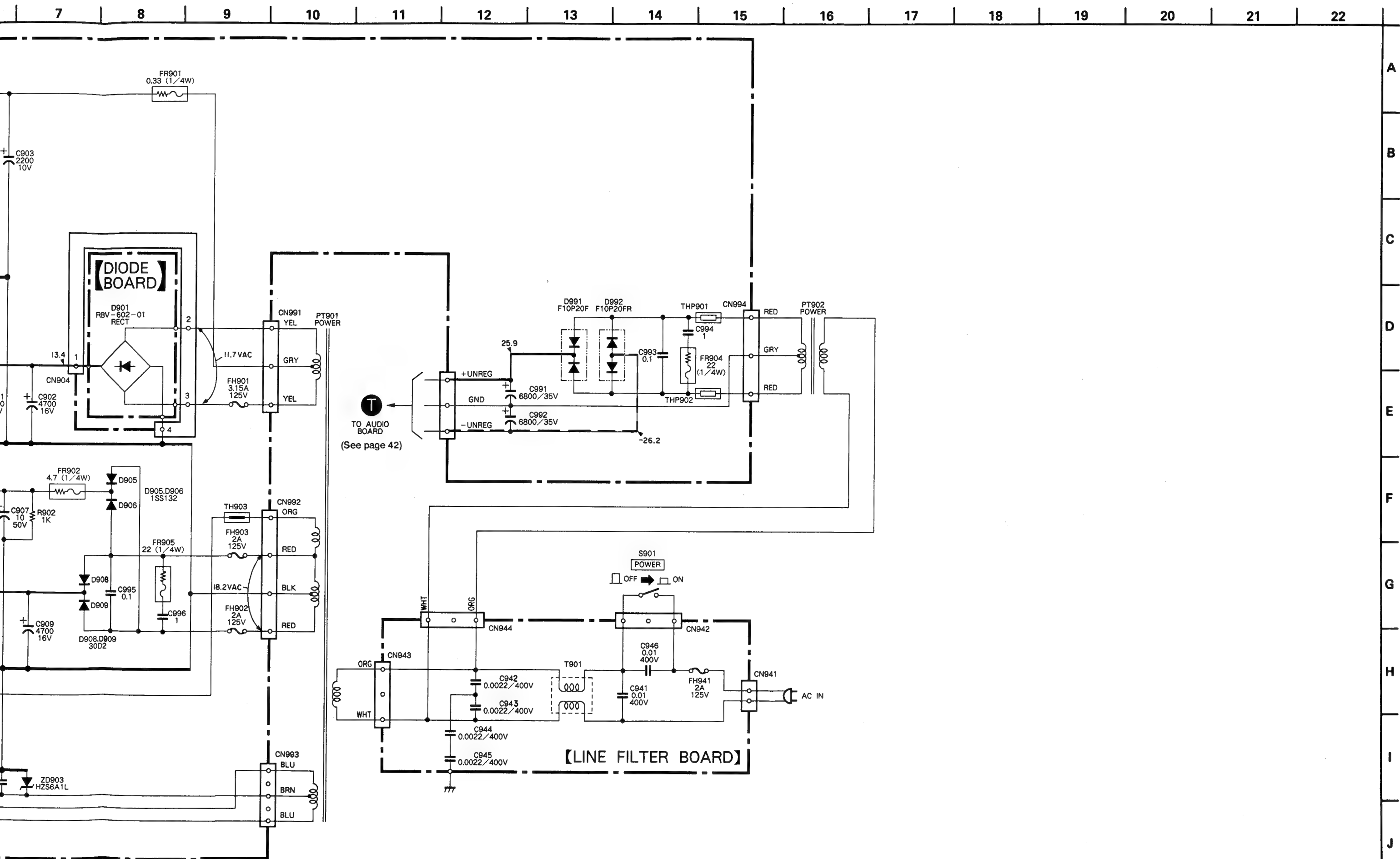
I-637-622-

11

TO DIGITAL BOARD
CN591
(See page 51)

TO DIGITAL BOARD
CN592
(See page 51)





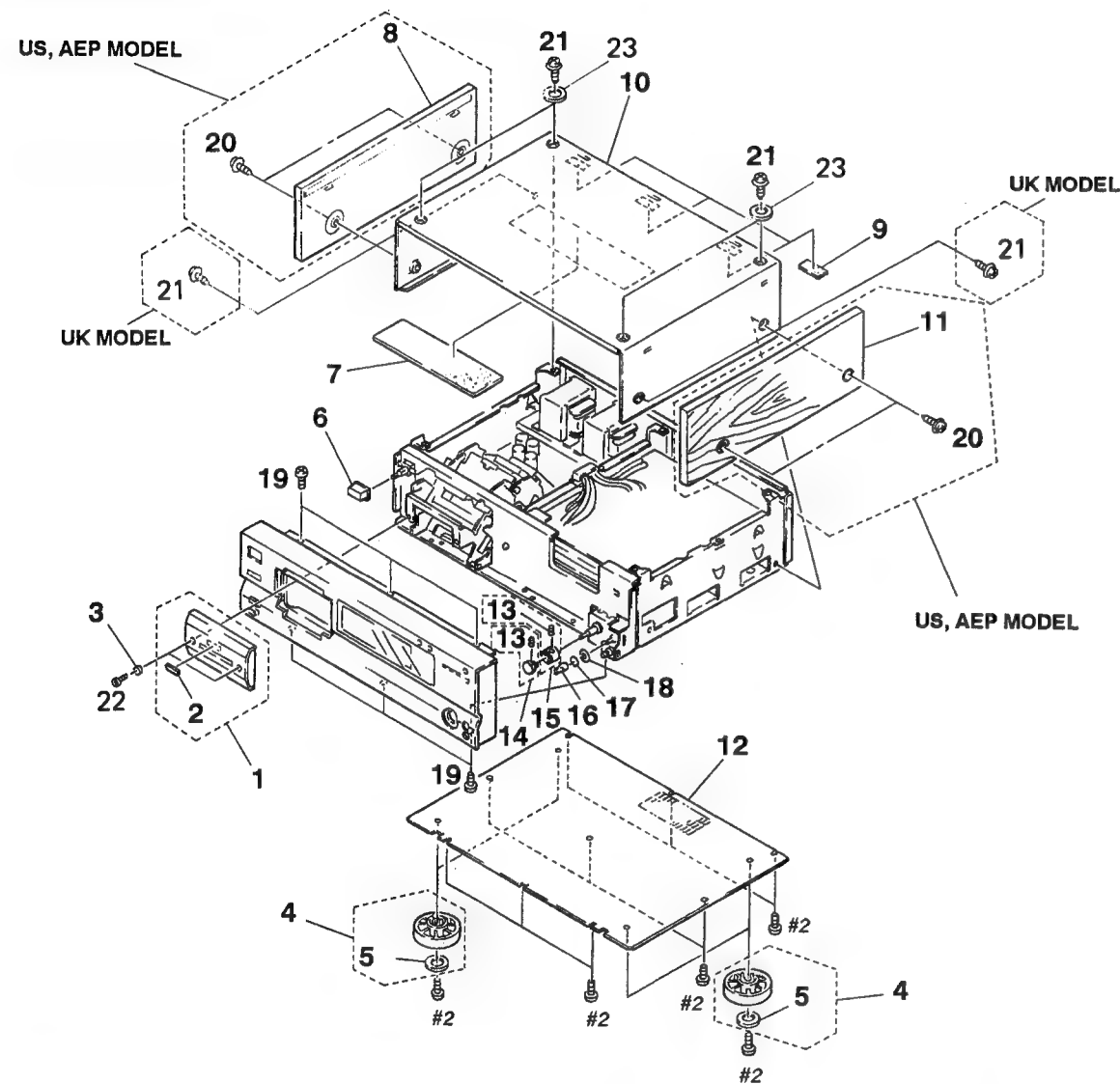
SECTION 5
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) ... (RED)
Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

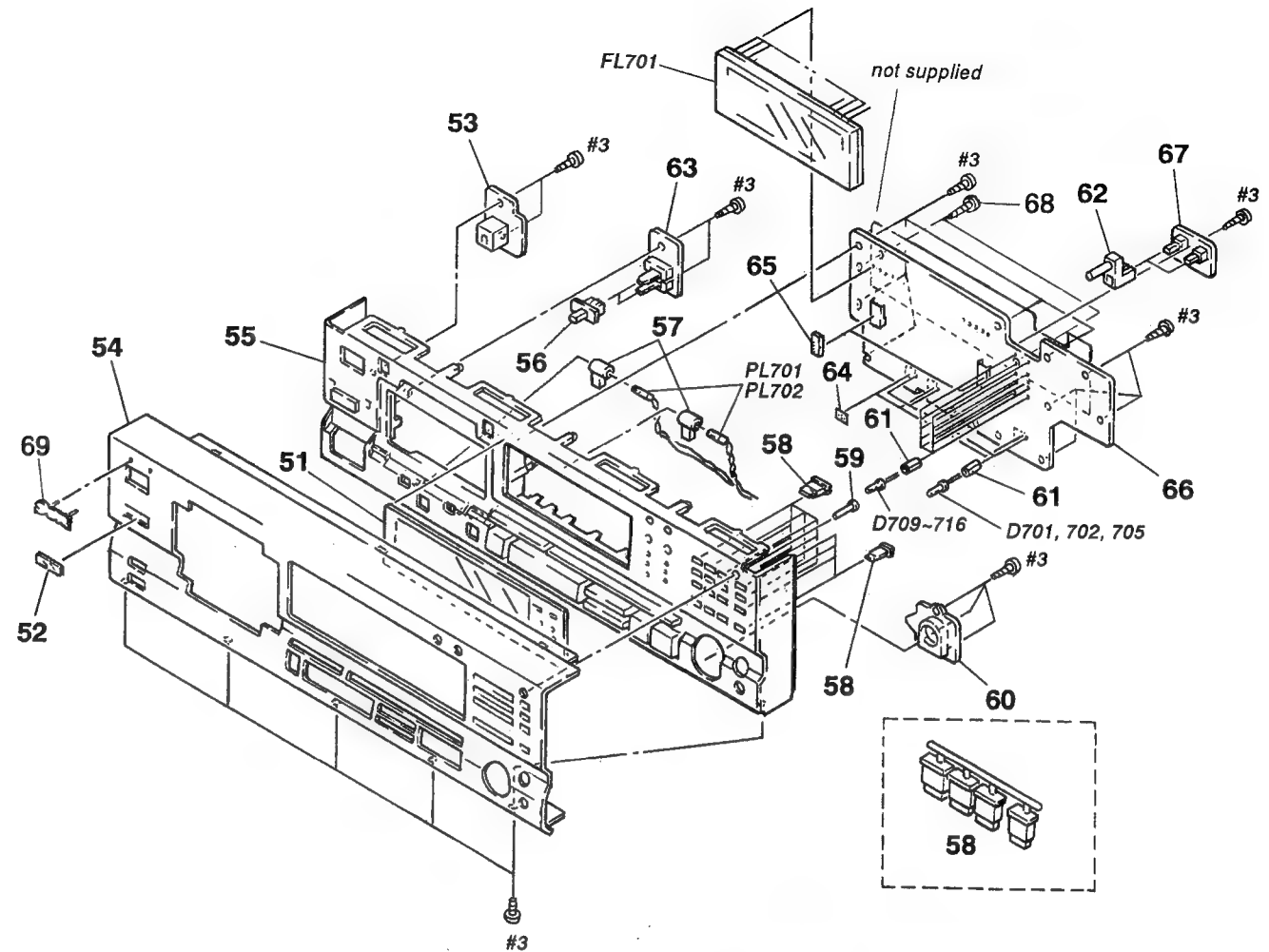
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

5-1. CABINET SECTION



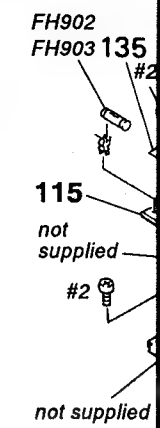
| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|----------------|---|--------|---------|----------------|--|--------|
| 1 | A-2003-671-A | PANEL (CASSETTE) ASSY... (BLACK) | | 12 | * 4-931-433-11 | PLATE, BOTTOM | |
| 2 | A-2003-903-A | PANEL (CASSETTE) ASSY... (GOLD) | | 13 | 3-701-506-01 | SET SCREW, DOUBLE POINT 3X4 | |
| 3 | 4-936-615-01 | PLATE (DAT LOGO), ORNAMENTAL... (BLACK) | | 14 | X-3362-380-1 | KNOB (REC-R) ASSY... (BLACK) | |
| 4 | 4-936-615-11 | PLATE (DAT LOGO), ORNAMENTAL... (GOLD) | | 15 | X-3363-175-1 | KNOB (REC-R) ASSY... (GOLD) | |
| 5 | 4-884-635-00 | BASE, ORNAMENTAL... (BLACK) | | 16 | X-3362-381-1 | KNOB (REC-L) ASSY... (BLACK) | |
| 6 | 4-884-635-21 | BASE, ORNAMENTAL... (GOLD) | | 17 | X-3363-176-1 | KNOB (REC-L) ASSY... (GOLD) | |
| 7 | X-3304-938-2 | FOOT ASSY... (BLACK) | | 18 | 3-354-931-01 | KNOB (DIA. 10)... (BLACK) | |
| 8 | X-4928-110-1 | FOOT ASSY... (GOLD) | | 19 | 3-354-931-31 | KNOB (DIA. 10)... (GOLD) | |
| 9 | 4-923-836-11 | CUSHION | | 20 | 3-356-935-01 | SPRING | |
| 10 | 4-923-520-01 | KNOB, POWER... (BLACK) | | 21 | * 4-604-335-01 | PLATE, BLIND (A) | |
| 11 | 4-923-520-12 | KNOB, POWER... (GOLD) | | 22 | 3-703-685-21 | SCREW (+BV 3X8) | |
| | * 4-936-612-01 | RUBBER (DAMPER) | | 23 | 4-933-446-01 | SCREW (SIDE PANEL) (EXCEPT UK) | |
| | X-3362-385-1 | PANEL (L) ASSY, SIDE... (BLACK) (US, AEP) | | | 3-704-366-01 | SCREW (CASE) (M3X8)... (BLACK) | |
| | X-3363-177-1 | PANEL (L) ASSY, SIDE... (GOLD) | | | 3-704-366-11 | SCREW (CASE) (M3X8)... (GOLD) | |
| | 3-831-441-XX | CUSHION, SPEAKER | | | 7-621-996-05 | BOLT, HEXAGON SOCKET 2.6X5... (BLACK) | |
| | 4-925-039-41 | CASE... (BLACK) | | | 4-901-727-00 | BOLT (M2.6X5), HOLE, HEXAGON... (GOLD) | |
| | 3-369-901-01 | CASE... (GOLD) | | | 4-928-025-41 | ESCUTCHEON (TOP PLATE)... (GOLD) | |
| | X-3362-386-1 | PANEL (R) ASSY, SIDE... (BLACK) (US, AEP) | | | | | |
| | X-3363-178-1 | PANEL (R) ASSY, SIDE... (GOLD) | | | | | |

5-2. FRONT PANEL SECTION



| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|----------------|--------------------------------------|--------|---------|----------------|--------------------------------------|--------|
| 51 | 3-364-924-01 | WINDOW (FL TUBE) | | 60 | 3-364-928-01 | ESCUTCHEON (R. V)... (BLACK) | |
| 52 | 3-364-919-01 | FILTER | | | 3-364-928-11 | ESCUTCHEON (R. V)... (GOLD) | |
| 53 | * 1-637-609-11 | OPTICAL RECEIVE BOARD | | 61 | * 4-911-676-01 | SPACER, LED | |
| 54 | 3-364-943-01 | PANEL (FRONT)... (BLACK) (77ES: AEP) | | 62 | 4-923-879-01 | BUTTON (DIA. 4)... (BLACK) | |
| | 3-364-943-12 | PANEL (FRONT) (87ES) | | | 4-923-879-21 | BUTTON (DIA. 4)... (GOLD) | |
| | 3-364-943-21 | PANEL (FRONT) (77ES: UK) | | 63 | * 1-637-608-11 | SLIDE SW BOARD | |
| | 3-364-943-31 | PANEL (FRONT)... (GOLD) (77ES: AEP) | | 64 | 3-831-441-11 | CUSHION | |
| 55 | X-3362-388-1 | ESCUTCHEON (PANEL) ASSY... (BLACK) | | 65 | 9-911-839-XX | CUSHION | |
| | X-3363-174-1 | ESCUTCHEON (PANEL) ASSY... (GOLD) | | 66 | * A-2006-536-A | CONTROL SW BOARD, COMPLETE (US) | |
| 56 | 3-307-538-21 | KNOB, SWITCH, TIMER... (BLACK) | | | * A-2006-557-A | CONTROL SW BOARD, COMPLETE (AEP, UK) | |
| 57 | * 3-365-031-01 | COVER, LAMP | | 67 | * 1-637-610-11 | PUSH SW BOARD | |
| 58 | 3-364-927-01 | BUTTON (10 KEY)... (BLACK) | | 68 | 3-531-576-01 | RIVET | |
| | 3-364-927-11 | BUTTON (10 KEY)... (GOLD) | | 69 | 4-908-848-01 | EMBLEM, SONY | |
| 59 | 4-934-031-01 | BUTTON (DISPLAY)... (BLACK) | | PL701 | 1-518-664-11 | LAMP, PILOT | |
| | 4-934-031-21 | BUTTON (DISPLAY)... (GOLD) | | PL702 | 1-518-664-11 | LAMP, PILOT | |

5-3. CHASSIS

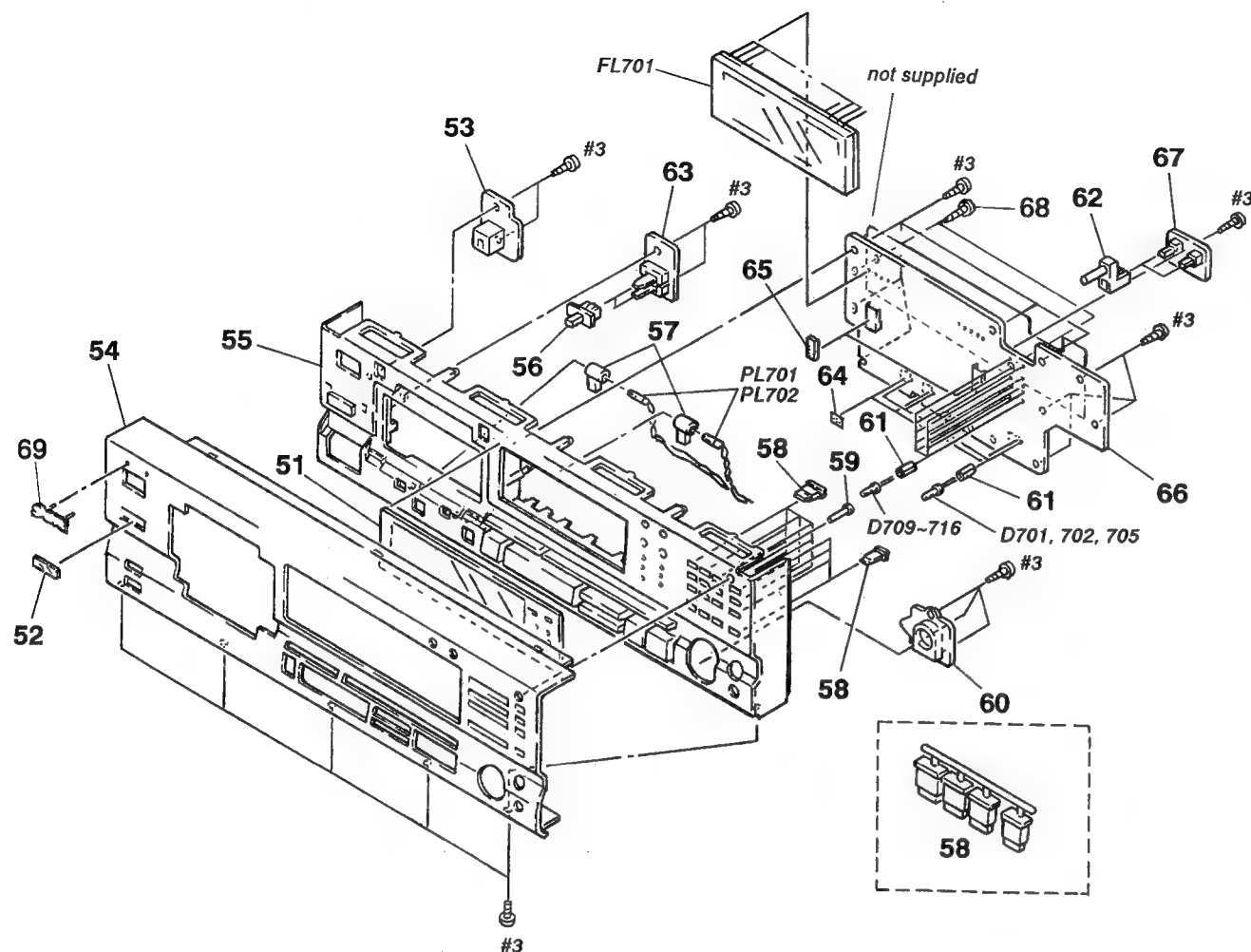


supplied with
supplied with

| Ref.No. | Part No. | Description | Remark |
|---------|--------------|-------------|--------|
| 101 | 3-5 | | |
| 102 | * A-2 | | |
| 103 | 3-7 | | |
| 104 | 4-8 | | |
| 105 | 4-9 | | |
| 106 | 9-9 | | |
| 107 | * 1-6 | | |
| 108 | * 1-6 | | |
| 109 | * 3-3 | | |
| 110 | * 1-6 | | |
| 111 | Δ 1-5 | | |
| | Δ 1-5 | | |
| | Δ 1-5 | | |
| 112 | * 4-9 | | |
| 113 | Δ 3-7 | | |
| | Δ 4-9 | | |
| 114 | 4-8 | | |
| 115 | * A-2 | | |
| 116 | * 1-6 | | |
| 117 | * 3-3 | | |
| | * 3-3 | | |
| | * 3-3 | | |
| 118 | * 1-6 | | |
| 119 | * A-2 | | |
| 120 | * 4-9 | | |
| 121 | * 1-6 | | |
| 122 | * 3-3 | | |
| 123 | * 1-6 | | |

identified by
line with mark
safety.
n part number

5-2. FRONT PANEL SECTION



| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|----------------|--------------------------------------|--------|---------|----------------|--------------------------------------|--------|
| 51 | 3-364-924-01 | WINDOW (FL TUBE) | | 60 | 3-364-928-01 | ESCUTCHEON (R.V)... (BLACK) | |
| 52 | 3-364-919-01 | FILTER | | 61 | 3-364-928-11 | ESCUTCHEON (R.V)... (GOLD) | |
| 53 | * 1-637-609-11 | OPTICAL RECEIVE BOARD | | 62 | * 4-911-676-01 | SPACER, LED | |
| 54 | 3-364-943-01 | PANEL (FRONT)... (BLACK) (77ES: AEP) | | 62 | 4-923-879-01 | BUTTON (DIA. 4)... (BLACK) | |
| | 3-364-943-12 | PANEL (FRONT) (87ES) | | | 4-923-879-21 | BUTTON (DIA. 4)... (GOLD) | |
| | 3-364-943-21 | PANEL (FRONT) (77ES: UK) | | 63 | * 1-637-608-11 | SLIDE SW BOARD | |
| | 3-364-943-31 | PANEL (FRONT)... (GOLD) (77ES: AEP) | | 64 | 3-831-441-11 | CUSHION | |
| 55 | X-3362-388-1 | ESCUTCHEON (PANEL) ASSY... (BLACK) | | 65 | 9-911-839-XX | CUSHION | |
| | X-3363-174-1 | ESCUTCHEON (PANEL) ASSY... (GOLD) | | 66 | * A-2006-536-A | CONTROL SW BOARD, COMPLETE (US) | |
| 56 | 3-307-538-21 | KNOB, SWITCH, TIMER... (BLACK) | | | * A-2006-557-A | CONTROL SW BOARD, COMPLETE (AEP, UK) | |
| 57 | * 3-365-031-01 | COVER, LAMP | | 67 | * 1-637-610-11 | PUSH SW BOARD | |
| 58 | 3-364-927-01 | BUTTON (10 KEY)... (BLACK) | | 68 | 3-531-576-01 | RIVET | |
| | 3-364-927-11 | BUTTON (10 KEY)... (GOLD) | | 69 | 4-908-848-01 | EMBLEM, SONY | |
| 59 | 4-934-031-01 | BUTTON (DISPLAY)... (BLACK) | | PL701 | 1-518-664-11 | LAMP, PILOT | |
| | 4-934-031-21 | BUTTON (DISPLAY)... (GOLD) | | PL702 | 1-518-664-11 | LAMP, PILOT | |

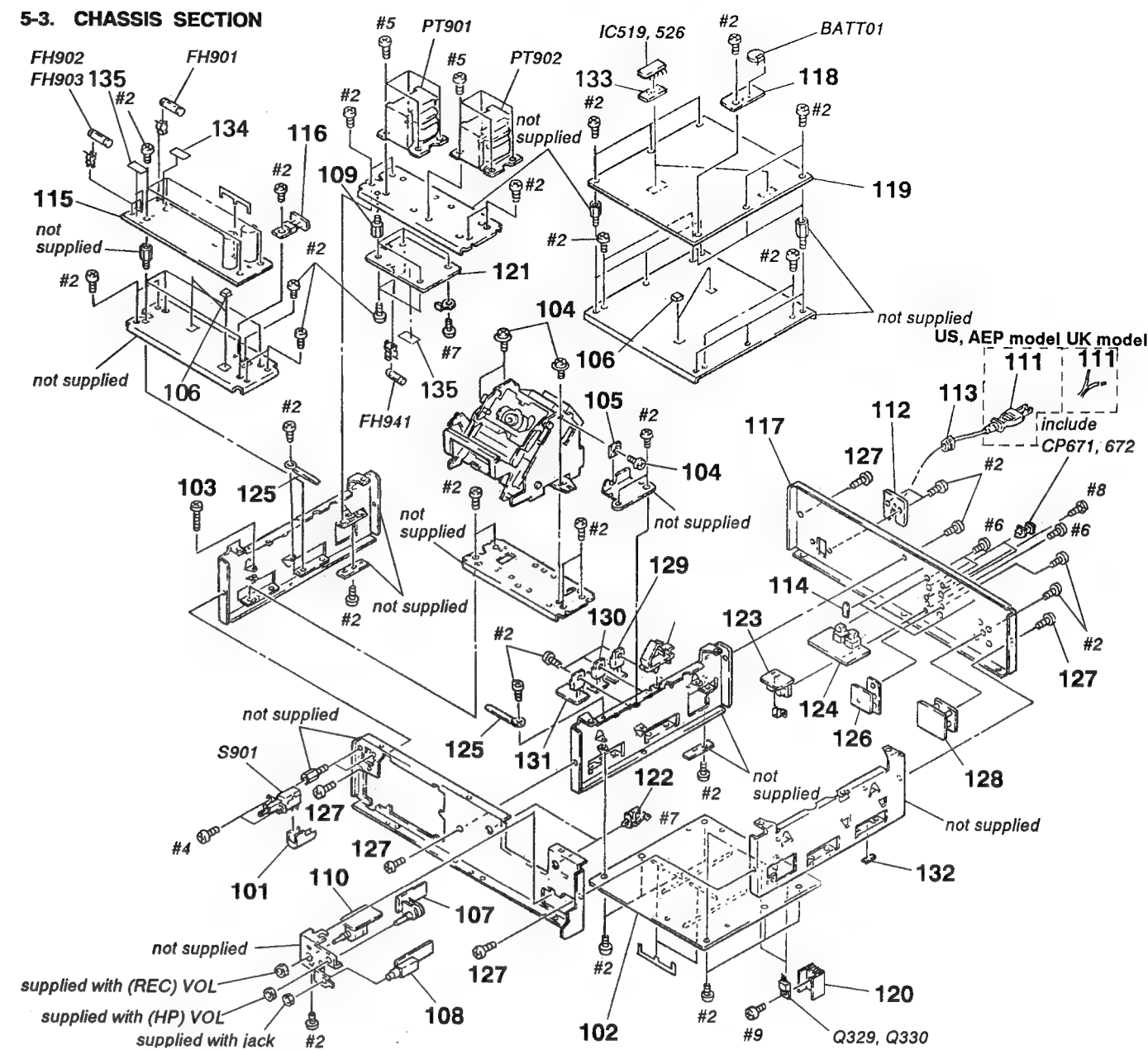
Remark

3X4
BLACK
GOLD

CEPT UK)
(BLACK)
(GOLD)

6X5... (BLACK)
EXAGON... (GOLD)
... (GOLD)

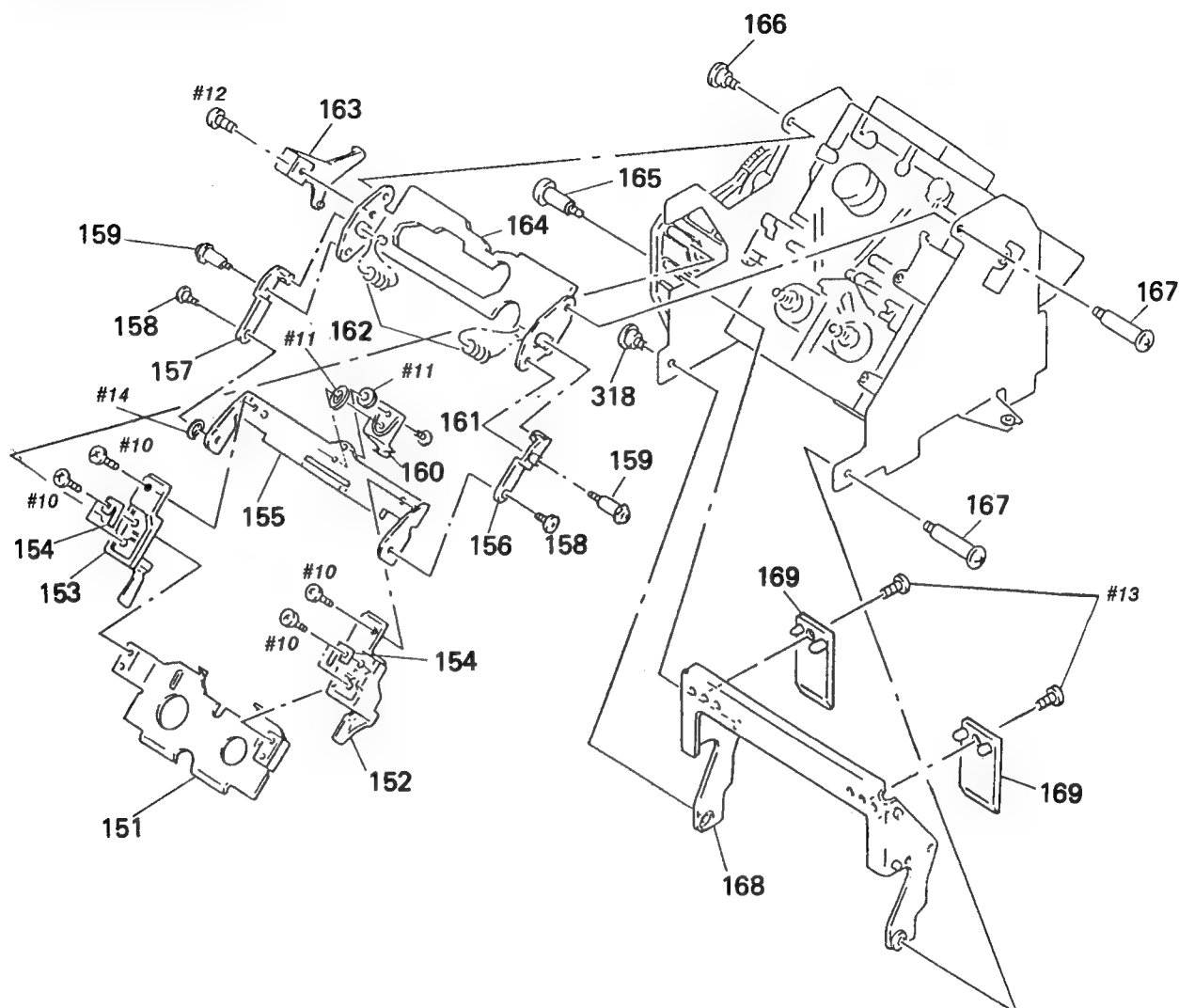
5-3. CHASSIS SECTION



| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|----------------|--------------------------------|--------|---------|----------------|--|--------|
| 101 | 3-575-524-00 | COVER, POWER SWITCH | | 124 | * 1-637-618-11 | D-I/O OPT BOARD | |
| 102 | * A-2006-537-A | AUDIO BOARD, COMPLETE | | 125 | 3-703-150-11 | STOPPER, WIRING | |
| 103 | 3-704-242-01 | SCREW, TERMINAL, +BVTP CLAW | | 126 | * 1-637-616-11 | COA IN BOARD | |
| 104 | 4-886-821-11 | SCREW, S TIGHT, +PTTWH 3X6 | | 127 | 3-703-685-21 | SCREW (+BV 3X8) | |
| 105 | 4-931-466-01 | SPACER | | 128 | * 1-637-620-11 | LINE IN BOARD | |
| 106 | 9-911-839-XX | CUSHION | | 129 | * 1-637-622-11 | TR-A BOARD | |
| 107 | * 1-637-613-11 | HP VOL BOARD | | 130 | * 1-637-623-11 | TR-B BOARD | |
| 108 | * 1-637-614-11 | HP JACK BOARD | | 131 | * 1-637-624-11 | TR-C BOARD | |
| 109 | * 3-363-575-31 | SUPPORT | | 132 | 9-911-843-XX | CUSHION, FLYWHEEL | |
| 110 | * 1-637-615-11 | REC VOL BOARD | | 133 | 1-543-843-11 | FERRITE BOARD, MULTI HOLE | |
| 111 | △1-559-479-11 | CORD, POWER (US) | | 134 | 3-701-947-16 | LABEL (T3.15A) FUSE (AEP, UK) | |
| | △1-575-912-11 | CORD, POWER (AEP) | | 135 | * 3-701-947-14 | LABEL (T2A), FUSE (AEP, UK) | |
| | △1-575-913-11 | CORD, POWER (UK) | | BATT01 | △1-528-229-11 | BATTERY, LITHIUM (CR-2450) | |
| 112 | * 4-923-873-01 | BRACKET, CORD STOPPER | | FH901 | △1-532-745-11 | FUSE, GLASS TUBE (3.15A 125V) (US) | |
| 113 | △3-703-244-00 | BUSHING (2104), CORD (AEP, UK) | | | △1-532-237-00 | FUSE, TIME-LAG (T3.15A 250V) (AEP, UK) | |
| | △4-916-783-01 | BUSHING, CORD (US) | | FH902 | △1-532-203-00 | FUSE, TIME-LAG (T2A 250V) (AEP, UK) | |
| 114 | 4-860-518-00 | PAPER, VIBRATION PROOF (E) | | | △1-532-743-11 | FUSE, GLASS TUBE (2A, 125V) (US) | |
| 115 | * A-2006-344-A | POWER BOARD, COMPLETE | | FH903 | △1-532-203-00 | FUSE, TIME-LAG (T2A 125V) (AEP, UK) | |
| 116 | * 1-637-625-11 | DIODE BOARD | | | △1-532-743-11 | FUSE, GLASS TUBE (2A, 250V) (US) | |
| 117 | 3-364-938-11 | PANEL, BACK (87ES) | | FH941 | △1-532-743-11 | FUSE, GLASS TUBE (2A, 125V) (US) | |
| | * 3-364-938-31 | PANEL, BACK (77ES: UK) | | | △1-532-203-00 | FUSE, TIME-LAG (T2A 250V) (AEP, UK) | |
| | * 3-364-938-41 | PANEL, BACK (77ES: AEP) | | PT901 | △1-450-450-11 | TRANSFORMER, POWER (D) (US) | |
| 118 | * 1-637-626-11 | BATTERY BOARD | | | △1-450-603-11 | TRANSFORMER, POWER (AEP, UK) | |
| 119 | * A-2006-587-A | DIGITAL BOARD, COMPLETE | | PT902 | △1-450-449-11 | TRANSFORMER, POWER (A) (US) | |
| 120 | 4-931-401-01 | HEAT SINK, V. OUT | | | △1-450-604-11 | TRANSFORMER, POWER (A) (AEP, UK) | |
| 121 | * 1-637-621-11 | LINE FILTER BOARD | | S901 | △1-554-920-11 | SWITCH, PUSH (AC POWER) (1 KEY) | |
| 122 | * 3-329-937-02 | CLIP, WIRE | | | | | |
| 123 | * 1-637-617-11 | DIGITAL OUT BOARD | | | | | |

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

5-4. MECHANISM SECTION 1



| Ref. No. | Part No. | Description |
|----------|----------|-------------|
|----------|----------|-------------|

| | | |
|-----|----------------|------------------------|
| 151 | 4-931-476-01 | HOLDER (LOWER) |
| 152 | 4-931-486-01 | HOLDER (C-RIGHT) |
| 153 | 4-931-484-01 | HOLDER (C-LEFT) |
| 154 | 3-366-308-01 | SPRING (SIDE), PLATE |
| 155 | * 4-931-485-01 | HOLDER (C-INNER) |
| 156 | 4-931-481-01 | ARM (LIMITER L) |
| 157 | 4-931-473-01 | ARM (LIMITER R) |
| 158 | 3-312-161-00 | SCREW, STEP, PRECISION |
| 159 | 4-918-991-01 | SCREW, STEP |
| 160 | 4-931-461-01 | SPRING (CENTER), LEAF |

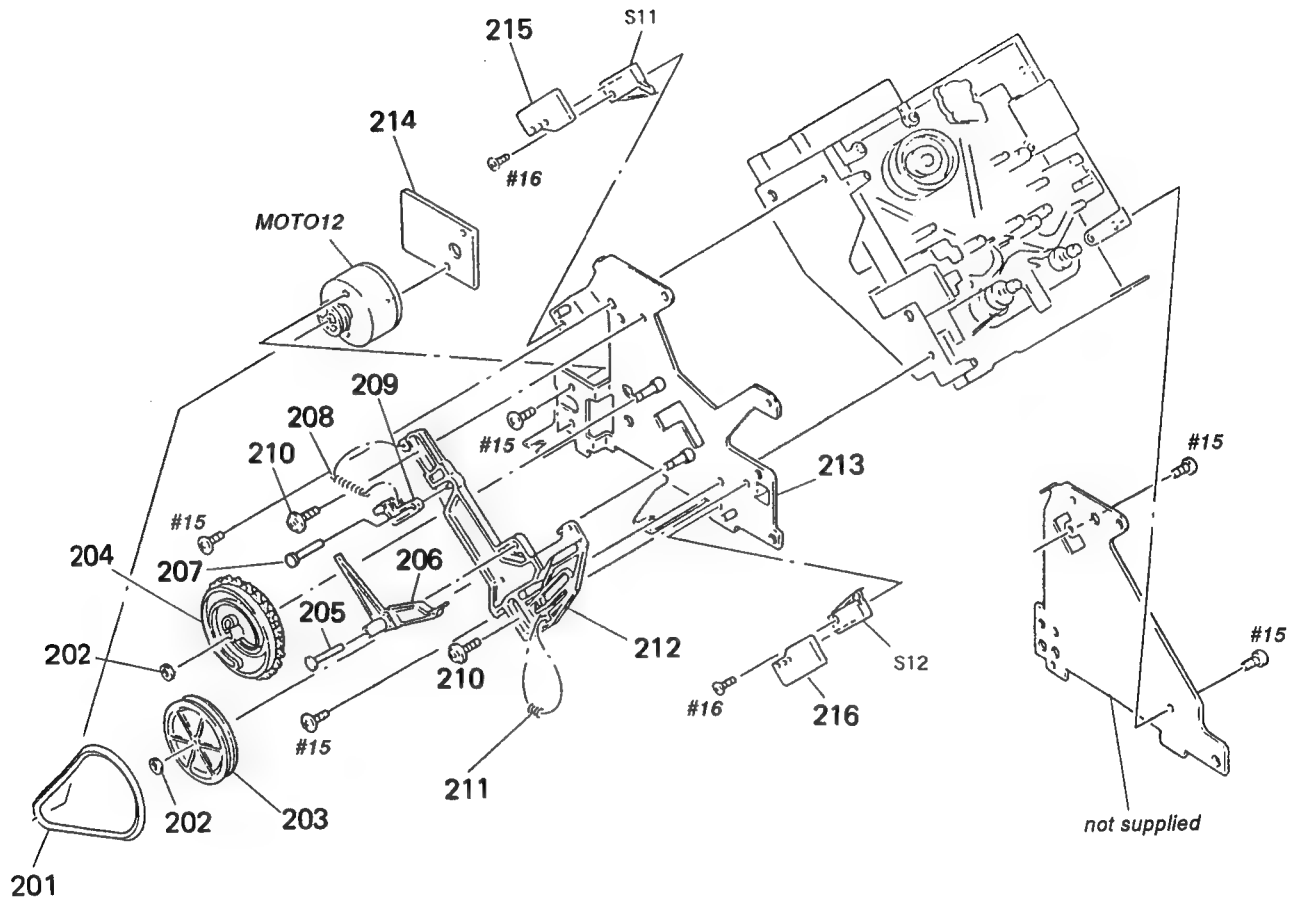
| Remark |
|--------|
|--------|

| Ref. No. | Part No. | Description |
|----------|----------|-------------|
|----------|----------|-------------|

| | | |
|-----|----------------|---------------------|
| 161 | 3-352-517-01 | SCREW (M2X2.5) |
| 162 | 3-537-214-00 | SPRING, COMPRESSION |
| 163 | * X-3362-941-1 | JOINT ASSY |
| 164 | 3-369-235-01 | PLATE, FULCRUM |
| 165 | 4-931-471-01 | SCREW (STEP) |
| 166 | 2-236-956-00 | SCREW, STEP |
| 167 | 4-931-463-01 | SCREW (STEP) |
| 168 | 4-931-474-01 | HOLDER (WINDOW) |
| 169 | 4-931-469-01 | PLATE, ORNAMENTAL |

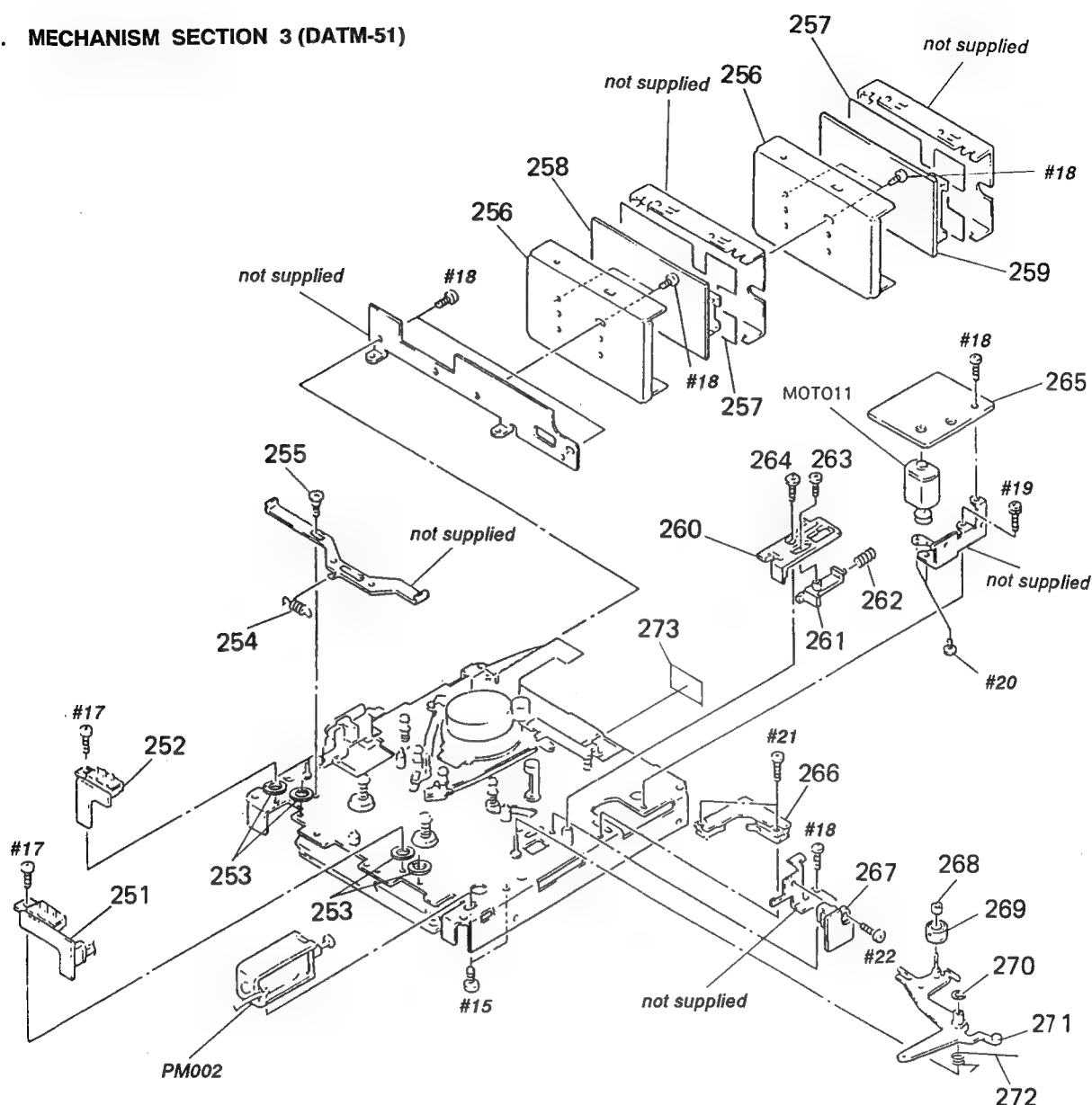
| Remark |
|--------|
|--------|

5-5. MECHANISM SECTION 2



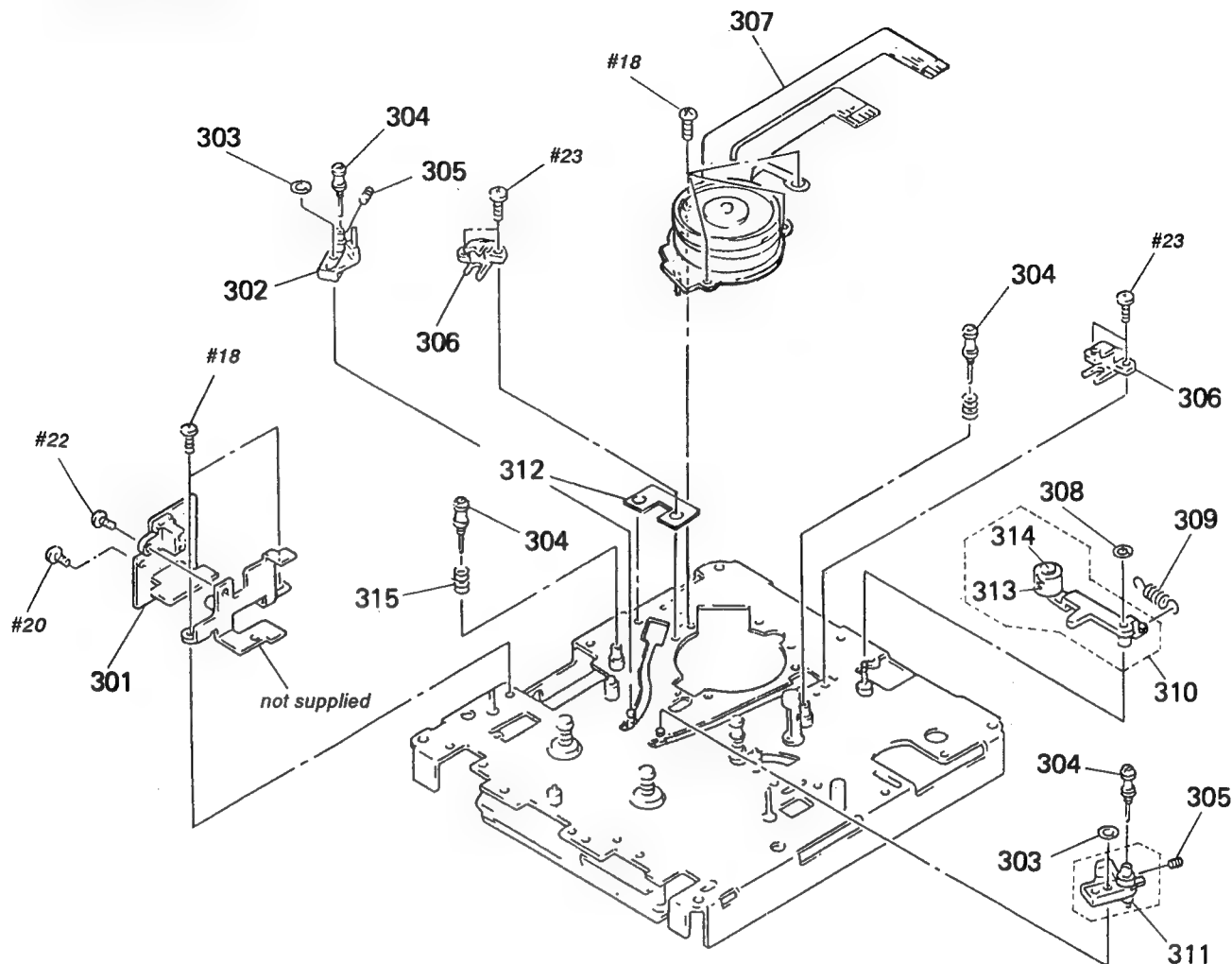
| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|---------------------------|--------|----------|----------------|-----------------------------------|--------|
| 201 | 4-931-470-01 | BELT (DRIVING) | | 210 | 4-932-336-01 | SCREW (STEP) | |
| 202 | 3-307-948-21 | WASHER, NYLON | | 211 | 3-537-215-00 | SPRING, COMPRESSION | |
| 203 | 4-931-459-01 | PULLEY | | 212 | 4-931-492-01 | SLIDER (CAM) | |
| 204 | 4-931-477-01 | GEAR (CAM) | | 213 | * X-4919-023-4 | PLATE ASSY, SIDE | |
| 205 | 4-931-468-01 | SHAFT (PRESS FITTING) | | 214 | * 1-633-726-11 | PC BOARD, MOTOR | |
| 206 | 4-931-490-01 | LEVER (LINK) | | 215 | * 1-633-727-11 | PC BOAED, SW(IN) | |
| 207 | 4-936-626-01 | SHAFT (ARM PRESS FITTING) | | 216 | * 1-633-728-11 | PC BOARD, SW(OUT) | |
| 208 | 3-549-810-00 | SPRING, TENSION | | MOTO12 | A-2003-448-A | MOTOR ASSY (CASSETTE COMPARTMENT) | |
| 209 | 4-931-460-01 | ARM (SLIDER) | | | | | |

5-6. MECHANISM SECTION 3 (DATM-51)



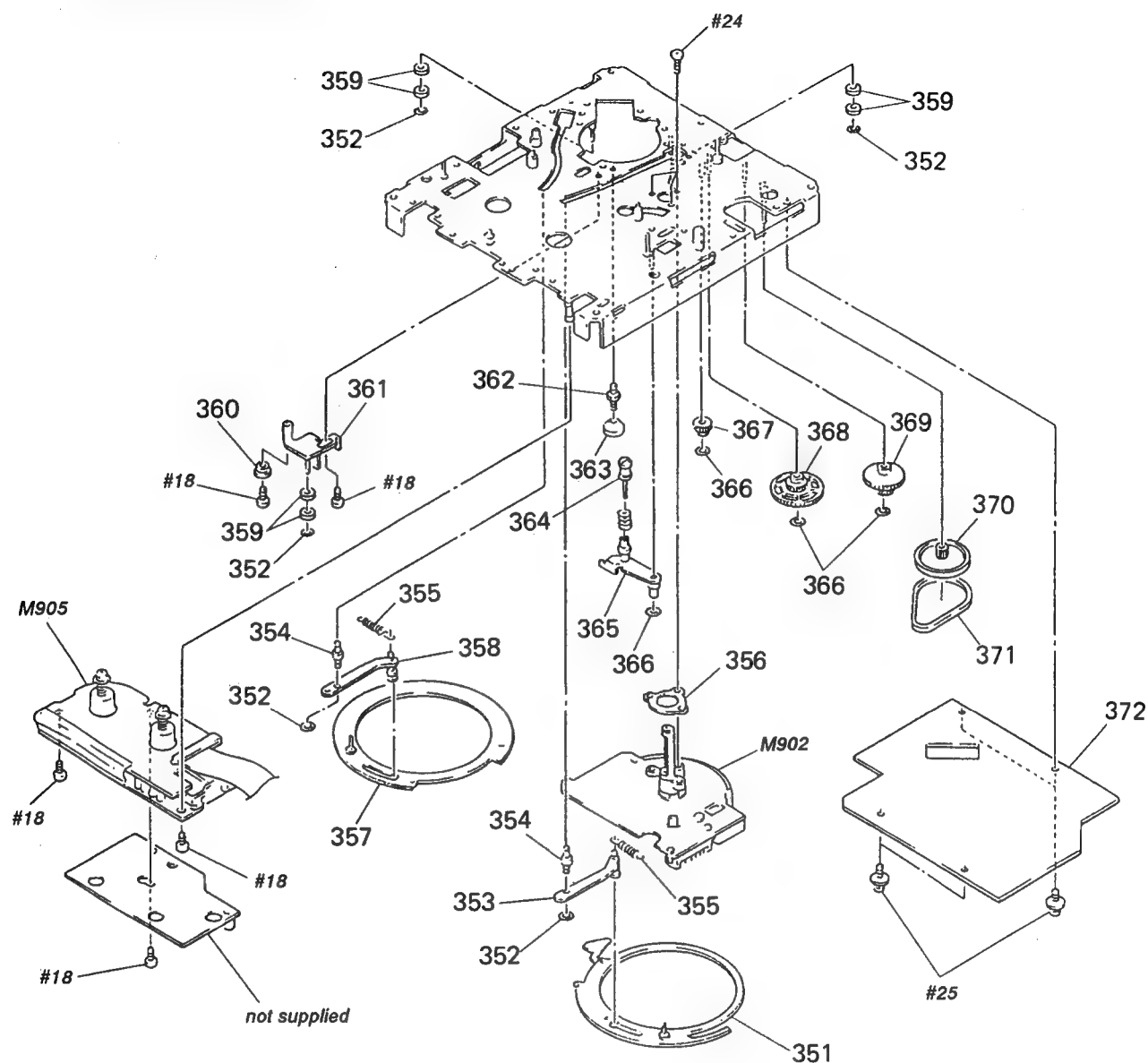
| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|----------------|---------------------------|--------|----------|----------------|---------------------------|--------|
| 251 | * 1-637-605-11 | T-SW BOARD | | 264 | 3-703-502-11 | SCREW | |
| 252 | * 1-637-604-11 | S-SW BOARD | | 265 | * 1-637-601-11 | LOADING MOTOR BOARD | |
| 253 | 3-344-781-01 | WASHER, POLYETHYLENE | | 266 | * 1-637-606-11 | LOAD-SW BOARD | |
| 254 | 3-307-375-00 | SPRING, TENSION | | 267 | * 1-637-603-11 | T-END BOARD | |
| 255 | 3-312-161-00 | SCREW, STEP, PRECISION | | 268 | 3-337-626-01 | CAP, PINCH ROLLER | |
| 256 | * 3-337-686-11 | CASE (LOWER), SHIELD | | 269 | X-3337-610-1 | PINCH ROLLER ASSY | |
| 257 | * 3-362-537-01 | SHEET (RF) | | 270 | 3-701-436-11 | WASHER, STOPPER | |
| 258 | * A-2006-207-A | AMPLIFIER BOARD, COMPLETE | | 271 | X-3362-021-1 | LEVER (PINCH ROLLER) ASSY | |
| 259 | * A-2006-206-A | AMPLIFIER BOARD, COMPLETE | | 272 | 3-367-352-01 | SPRING (PINCH) | |
| 260 | 3-362-148-01 | SLIDER (PINCH) | | 273 | 3-366-886-01 | SHEET (RF BRACKET) | |
| 261 | 3-362-149-01 | SLIDER (LIMITTER) | | MOTO11 | A-2003-660-A | MOTOR ASSY (LOADING) | |
| 262 | 3-564-035-00 | SPRING, COMPRESSION | | PM002 | 1-454-522-11 | SOLENOID, PLUNGER | |
| 263 | 2-623-756-01 | SCREW, (B1.7X3), TAPPING | | | | | |

5-7. MECHANISM SECTION 4 (DATM-51)



| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|----------------|---------------------------|--------|----------|--------------|-----------------------|--------|
| 301 | * 1-637-602-11 | S-END BOARD | | 309 | 3-307-375-00 | SPRING, TENSION | |
| 302 | X-3362-028-1 | SLANT BLOCK (L2) ASSY | | 310 | A-2003-487-A | ARM (CLEANING) ASSY | |
| 303 | 3-325-698-01 | RING, RETAINING | | 311 | X-3362-029-1 | SLANT BLOCK (R2) ASSY | |
| 304 | X-3362-027-1 | GUIDE ASSY, ROLLER | | 312 | 3-701-437-01 | SHEET (CATCHER) | |
| 305 | 3-362-152-01 | SCREW (RETURN GUIDE BOSS) | | 313 | 3-352-518-01 | ROLLER (CLEANER) | |
| 306 | * 3-337-685-01 | CATCHER | | 314 | 3-353-812-01 | COLLAR (ROLLER) | |
| 307 | 8-848-549-11 | DRUM ASSY DOU-15A-R | | 315 | 3-573-470-00 | SPRING, COMPRESSION | |
| 308 | 3-701-436-11 | WASHER, STOPPER | | | | | |

5-8. MECHANISM SECTION 5 (DATM-51)



| Ref.No. | Part No. | Description |
|---------|----------------|--------------------------------|
| 351 | X-3362-204-1 | GEAR (LOAD) ASSY |
| 352 | 3-559-408-11 | WASHER, POLYETHYLENE, DIA. 1.2 |
| 353 | * X-3362-025-1 | LEVER (LOADING R) ASSY |
| 354 | 3-362-151-01 | BOSS (GUIDE) |
| 355 | 3-337-653-01 | SPRING, TENSION |
| 356 | * 3-362-156-01 | BRACKET (CAPSTAN) |
| 357 | X-3337-602-1 | RING (LEFT) ASSY, LOADING |
| 358 | * X-3362-024-1 | LEVER (LOADING L) ASSY |
| 359 | 3-337-622-01 | ROLLER, RING |
| 360 | * 3-362-158-01 | COLLAR (RING ADJUSTMENT) |
| 361 | * X-3362-023-1 | ARM (RING ROLLER) ASSY |
| 362 | * 3-362-159-01 | SHAFT (RING ADJUSTMENT) |
| 363 | 3-362-160-01 | NUT (RING ADJUSTMENT) |

| Ref.No. | Part No. | Description | Remark |
|---------|----------------|----------------------|--------|
| 364 | X-3362-027-1 | GUIDE ASSY, ROLLER | |
| 365 | * X-3362-020-1 | LEVER (F GUIDE) ASSY | |
| 366 | 3-701-436-11 | WASHER, STOPPER | |
| 367 | 3-345-182-01 | GEAR (LOADING B) | |
| 368 | 3-345-181-01 | GEAR (LOADING A) | |
| 369 | 3-362-155-01 | GEAR (A) | |
| 370 | 4-932-338-01 | PULLEY (A) | |
| 371 | 4-913-325-01 | BELT, TAKE-UP | |
| 372 | * A-2006-382-A | MD BOARD, COMPLETE | |
| M902 | 8-835-306-01 | MOTOR, DC U-17A | |
| M905 | * 8-835-205-01 | MOTOR, DC U-2A | |

RF AMP (REC/PB)

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• SEMICONDUCTORS

In each case, u: μ , for example:uA...: μ A..., uPA...: μ PA...,uPB...: μ PB..., uPC...: μ PC...,uPD...: μ PD...

• CAPACITORS

uF: μ F

• COILS

uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When including parts by reference number, please include the board name.

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|---|--------------|-----------------------|----------|---------------|----------------|--------------------------------|----------|
| * A-2006-206-A RF AMP (REC/PB) BOARD, COMPLETE ***** | | | | < CONNECTOR > | | | |
| | | < CAPACITOR > | | CN951 | 1-569-349-11 | CONNECTOR, F.P.C 6P | |
| C951 | 1-164-005-11 | CERAMIC CHIP 0.47uF | 25V | CN952 | * 1-564-728-11 | PIN, CONNECTOR (SMALL TYPE)12P | |
| C953 | 1-163-038-00 | CERAMIC CHIP 0.1uF | 25V | | | < IC > | |
| C954 | 1-163-005-11 | CERAMIC CHIP 470PF | 10% 50V | IC951 | 8-752-032-26 | IC CXA1045Q-Z | |
| C955 | 1-164-005-11 | CERAMIC CHIP 0.47uF | 25V | | | < COIL > | |
| C956 | 1-124-778-00 | ELECT CHIP 22uF | 20% 6.3V | L951 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| C957 | 1-163-038-00 | CERAMIC CHIP 0.1uF | 25V | L952 | 1-408-791-00 | INDUCTOR CHIP 150uH | |
| C958 | 1-163-005-11 | CERAMIC CHIP 470PF | 10% 50V | L953 | 1-408-791-00 | INDUCTOR CHIP 150uH | |
| C959 | 1-163-005-11 | CERAMIC CHIP 470PF | 10% 50V | | | < RESISTOR > | |
| C960 | 1-163-011-11 | CERAMIC CHIP 0.0015uF | 10% 50V | R951 | 1-216-056-00 | METAL GLAZE 2K | 5% 1/10W |
| C961 | 1-164-232-11 | CERAMIC CHIP 0.01uF | 50V | R952 | 1-216-056-00 | METAL GLAZE 2K | 5% 1/10W |
| C962 | 1-164-004-11 | CERAMIC CHIP 0.1uF | 10% 25V | R953 | 1-216-057-00 | METAL CHIP 2.2K | 5% 1/10W |
| C963 | 1-164-232-11 | CERAMIC CHIP 0.01uF | 50V | R954 | 1-216-057-00 | METAL CHIP 2.2K | 5% 1/10W |
| C965 | 1-164-298-11 | CERAMIC CHIP 0.15uF | 10% 25V | R955 | 1-216-089-00 | METAL CHIP 47K | 5% 1/10W |
| C966 | 1-163-038-00 | CERAMIC CHIP 0.1uF | 25V | R956 | 1-216-083-00 | METAL CHIP 27K | 5% 1/10W |
| C967 | 1-124-778-00 | ELECT CHIP 22uF | 20% 6.3V | R957 | 1-216-063-00 | METAL CHIP 3.9K | 5% 1/10W |
| C968 | 1-163-038-00 | CERAMIC CHIP 0.1uF | 25V | R958 | 1-216-085-00 | METAL CHIP 33K | 5% 1/10W |
| C969 | 1-164-005-11 | CERAMIC CHIP 0.47uF | 25V | R959 | 1-216-067-00 | METAL CHIP 5.6K | 5% 1/10W |
| C971 | 1-164-298-11 | CERAMIC CHIP 0.15uF | 10% 25V | R960 | 1-216-079-00 | METAL CHIP 18K | 5% 1/10W |
| C973 | 1-164-232-11 | CERAMIC CHIP 0.01uF | 50V | R961 | 1-216-079-00 | METAL CHIP 18K | 5% 1/10W |
| C974 | 1-164-004-11 | CERAMIC CHIP 0.1uF | 10% 25V | R962 | 1-216-067-00 | METAL CHIP 5.6K | 5% 1/10W |
| C975 | 1-164-232-11 | CERAMIC CHIP 0.01uF | 50V | R963 | 1-216-085-00 | METAL CHIP 33K | 5% 1/10W |
| C976 | 1-163-011-11 | CERAMIC CHIP 0.0015uF | 10% 50V | R964 | 1-216-083-00 | METAL CHIP 27K | 5% 1/10W |
| C977 | 1-163-020-00 | CERAMIC CHIP 0.0082uF | 10% 50V | R965 | 1-216-063-00 | METAL CHIP 3.9K | 5% 1/10W |
| C978 | 1-162-638-11 | CERAMIC CHIP 1uF | 16V | R966 | 1-216-089-00 | METAL CHIP 47K | 5% 1/10W |
| C979 | 1-163-020-00 | CERAMIC CHIP 0.0082uF | 10% 50V | R967 | 1-216-089-00 | METAL CHIP 47K | 5% 1/10W |
| C980 | 1-163-809-11 | CERAMIC CHIP 0.047uF | 10% 25V | R968 | 1-216-089-00 | METAL CHIP 47K | 5% 1/10W |
| C981 | 1-163-809-11 | CERAMIC CHIP 0.047uF | 10% 25V | R969 | 1-216-075-00 | METAL CHIP 12K | 5% 1/10W |
| C982 | 1-163-005-11 | CERAMIC CHIP 470PF | 10% 50V | R970 | 1-216-082-00 | METAL GLAZE 24K | 5% 1/10W |
| C983 | 1-164-232-11 | CERAMIC CHIP 0.01uF | 50V | R971 | 1-216-748-11 | METAL CHIP 39K | 5% 1/10W |
| C984 | 1-163-005-11 | CERAMIC CHIP 470PF | 10% 50V | R972 | 1-216-295-00 | METAL CHIP 0 | 5% 1/10W |
| C985 | 1-163-005-11 | CERAMIC CHIP 470PF | 10% 50V | R973 | 1-216-073-00 | METAL CHIP 10K | 5% 1/10W |
| | | | | R974 | 1-216-073-00 | METAL CHIP 10K | 5% 1/10W |

RF AMP (REC/PB)

RF AMP (PB)

AUDIO

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|--|----------------|--------------------------------|--------|--------------------------------------|--------------|--------------------------|--------|
| < VARIABLE RESISTOR > | | | | < RESISTOR > | | | |
| RV951 | 1-238-237-11 | RES, ADJ, CERMET 470 | | R51 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| RV952 | 1-238-237-11 | RES, ADJ, CERMET 470 | | R52 | 1-216-077-00 | METAL CHIP 15K 5% 1/10W | |
| ***** | | | | R53 | 1-216-077-00 | METAL CHIP 15K 5% 1/10W | |
| * A-2006-207-A RF AMP (PB) BOARD, COMPLETE | | | | R54 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| ***** | | | | R55 | 1-216-083-00 | METAL CHIP 27K 5% 1/10W | |
| < CAPACITOR > | | | | R56 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| C51 | 1-124-779-00 | ELECT CHIP 10uF 20% 16V | | R57 | 1-216-084-00 | METAL GLAZE 30K 5% 1/10W | |
| C52 | 1-163-117-00 | CERAMIC CHIP 100PF 5% 50V | | R58 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| C53 | 1-162-638-11 | CERAMIC CHIP 1uF 16V | | R59 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| C54 | 1-164-299-11 | CERAMIC CHIP 0.22uF 10% 25V | | R60 | 1-216-748-11 | METAL CHIP 39K 5% 1/10W | |
| C55 | 1-164-004-11 | CERAMIC CHIP 0.1uF 10% 25V | | R61 | 1-216-075-00 | METAL CHIP 12K 5% 1/10W | |
| C57 | 1-124-779-00 | ELECT CHIP 10uF 20% 16V | | R62 | 1-216-077-00 | METAL CHIP 15K 5% 1/10W | |
| C58 | 1-164-004-11 | CERAMIC CHIP 0.1uF 10% 25V | | R63 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| C59 | 1-164-299-11 | CERAMIC CHIP 0.22uF 10% 25V | | ***** | | | |
| C60 | 1-162-638-11 | CERAMIC CHIP 1uF 16V | | * A-2006-537-A AUDIO BOARD, COMPLETE | | | |
| C61 | 1-163-117-00 | CERAMIC CHIP 100PF 5% 50V | | ***** | | | |
| C62 | 1-124-779-00 | ELECT CHIP 10uF 20% 16V | | 1-568-129-11 BAR, BUS 8P | | | |
| C63 | 1-163-005-11 | CERAMIC CHIP 470PF 10% 50V | | * 1-568-130-11 BAR, BUS 3P | | | |
| C64 | 1-163-005-11 | CERAMIC CHIP 470PF 10% 50V | | 7-682-147-15 SCREW, TR | | | |
| C66 | 1-163-009-11 | CERAMIC CHIP 0.001uF 10% 50V | | * 3-346-266-12 PLATE, GROUND | | | |
| C69 | 1-124-779-00 | ELECT CHIP 10uF 20% 16V | | * 4-931-401-01 HEAT SINK, V. OUT | | | |
| C70 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | | < CAPACITOR > | | | |
| C71 | 1-164-005-11 | CERAMIC CHIP 0.47uF 25V | | C101 | 1-124-915-11 | ELECT 10uF 20% 63V | |
| C72 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | | C102 | 1-136-153-00 | FILM 0.01uF 5% 50V | |
| < CONNECTOR > | | | | C103 | 1-136-153-00 | FILM 0.01uF 5% 50V | |
| CN51 | 1-569-349-11 | CONNECTOR, F.P.C 6P | | C167 | 1-136-811-11 | FILM 330PF 5% 100V | |
| CN52 | * 1-564-725-11 | PIN, CONNECTOR (SMALL TYPE) 9P | | C168 | 1-136-811-11 | FILM 330PF 5% 100V | |
| < IC > | | | | C169 | 1-136-810-11 | FILM 220PF 5% 100V | |
| IC51 | 8-752-039-01 | IC CXA1364R | | C170 | 1-136-810-11 | FILM 220PF 5% 100V | |
| < COIL > | | | | C171 | 1-136-234-11 | FILM 0.0062uF 3% 100V | |
| L51 | 1-408-781-00 | INDUCTOR, CHIP 22uH | | C172 | 1-136-808-11 | FILM 100PF 5% 100V | |
| L52 | 1-408-789-21 | INDUCTOR, CHIP 100uH | | C173 | 1-136-234-11 | FILM 0.0062uF 3% 100V | |
| L53 | 1-408-781-00 | INDUCTOR, CHIP 22uH | | C174 | 1-136-808-11 | FILM 100PF 5% 100V | |
| < TRANSISTOR > | | | | C175 | 1-136-228-11 | FILM 0.0012uF 3% 100V | |
| Q51 | 8-729-901-01 | TRANSISTOR DTC144EK | | C176 | 1-136-233-11 | FILM 0.0047uF 3% 100V | |
| Q52 | 8-729-901-01 | TRANSISTOR DTC144EK | | C177 | 1-124-918-11 | ELECT 47uF 20% 63V | |
| Q53 | 8-729-901-01 | TRANSISTOR DTC144EK | | C178 | 1-109-621-00 | MICA 220PF 500V | |
| Q54 | 8-729-901-01 | TRANSISTOR DTC144EK | | C201 | 1-124-915-11 | ELECT 10uF 20% 63V | |
| Q55 | 8-729-901-01 | TRANSISTOR DTC144EK | | C202 | 1-136-153-00 | FILM 0.01uF 5% 50V | |
| | | | | C203 | 1-136-153-00 | FILM 0.01uF 5% 50V | |
| | | | | C267 | 1-136-811-11 | FILM 330PF 5% 100V | |
| | | | | C268 | 1-136-811-11 | FILM 330PF 5% 100V | |
| | | | | C269 | 1-136-810-11 | FILM 220PF 5% 100V | |
| | | | | C270 | 1-136-810-11 | FILM 220PF 5% 100V | |
| | | | | C271 | 1-136-234-11 | FILM 0.0062uF 3% 100V | |
| | | | | C272 | 1-136-808-11 | FILM 100PF 5% 100V | |
| | | | | C273 | 1-136-234-11 | FILM 0.0062uF 3% 100V | |

AUDIO

| Ref. No. | Part No. | Description | Remark | | | Ref. No. | Part No. | Description | Remark | | |
|----------|--------------|-------------|----------|-----|------|---------------|----------------|--------------------|---------|-----|-----|
| C274 | 1-136-808-11 | FILM | 100PF | 5% | 100V | C354 | 1-124-122-11 | ELECT | 100uF | 20% | 50V |
| C275 | 1-136-228-11 | FILM | 0.0012uF | 3% | 100V | C355 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C276 | 1-136-233-11 | FILM | 0.0047uF | 3% | 100V | C356 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C277 | 1-124-918-11 | ELECT | 47uF | 20% | 63V | C357 | 1-124-122-11 | ELECT | 100uF | 20% | 50V |
| C278 | 1-109-621-00 | MICA | 220PF | 1% | 500V | C358 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C301 | 1-124-915-11 | ELECT | 10uF | 20% | 63V | C359 | 1-124-122-11 | ELECT | 100uF | 20% | 50V |
| C302 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C360 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C303 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C361 | 1-124-122-11 | ELECT | 100uF | 20% | 50V |
| C304 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C362 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C305 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C363 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V |
| C306 | 1-124-484-11 | ELECT | 220uF | 20% | 35V | C364 | 1-162-284-31 | CERAMIC | 150PF | 10% | 50V |
| C307 | 1-124-484-11 | ELECT | 220uF | 20% | 35V | C365 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V |
| C310 | 1-124-713-11 | ELECT | 470uF | 20% | 35V | C366 | 1-124-122-11 | ELECT | 100uF | 20% | 50V |
| C311 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C367 | 1-162-211-31 | CERAMIC | 33PF | 5% | 50V |
| C312 | 1-124-713-11 | ELECT | 470uF | 20% | 35V | C368 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V |
| C313 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C370 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V |
| C314 | 1-124-484-11 | ELECT | 220uF | 20% | 35V | C371 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C315 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C372 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C316 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C373 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V |
| C317 | 1-124-918-11 | ELECT | 47uF | 20% | 63V | C374 | 1-136-177-00 | FILM | 1uF | 5% | 50V |
| C318 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C375 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C319 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C376 | 1-124-484-11 | ELECT | 220uF | 20% | 35V |
| C320 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C377 | 1-124-484-11 | ELECT | 220uF | 20% | 35V |
| C325 | 1-124-517-11 | ELECT | 470uF | 20% | 50V | C378 | 1-124-713-11 | ELECT | 470uF | 20% | 35V |
| C326 | 1-124-517-11 | ELECT | 470uF | 20% | 50V | C379 | 1-124-713-11 | ELECT | 470uF | 20% | 35V |
| C327 | 1-124-130-00 | ELECT | 100uF | 20% | 63V | C380 | 1-124-915-11 | ELECT | 10uF | 20% | 63V |
| C328 | 1-124-130-00 | ELECT | 100uF | 20% | 63V | C381 | 1-124-713-11 | ELECT | 470uF | 20% | 35V |
| C329 | 1-107-210-00 | MICA | 22PF | 5% | 500V | C382 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C330 | 1-107-210-00 | MICA | 22PF | 5% | 500V | C383 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C331 | 1-124-922-11 | ELECT | 1000uF | 20% | 63V | C384 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C332 | 1-124-922-11 | ELECT | 1000uF | 20% | 63V | C385 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C333 | 1-124-484-11 | ELECT | 220uF | 20% | 35V | C386 | 1-124-484-11 | ELECT | 220uF | 20% | 35V |
| C334 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C387 | 1-124-484-11 | ELECT | 220uF | 20% | 35V |
| C337 | 1-124-122-11 | ELECT | 100uF | 20% | 50V | C389 | 1-124-122-11 | ELECT | 100uF | 20% | 50V |
| C338 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C390 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V |
| C339 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C391 | 1-136-177-00 | FILM | 1uF | 5% | 50V |
| C340 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C392 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C341 | 1-124-122-11 | ELECT | 100uF | 20% | 50V | C393 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C342 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C394 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C343 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C395 | 1-162-179-11 | CERAMIC | 0.1uF | | 50V |
| C344 | 1-124-122-11 | ELECT | 100uF | 20% | 50V | < CONNECTOR > | | | | | |
| C345 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | CN96 | * 1-564-506-11 | PLUG, CONNECTOR 3P | | | |
| C346 | 1-124-122-11 | ELECT | 100uF | 20% | 50V | CN101 | * 1-564-505-11 | PLUG, CONNECTOR 2P | | | |
| C347 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | CN102 | * 1-564-505-11 | PLUG, CONNECTOR 2P | | | |
| C348 | 1-124-122-11 | ELECT | 100uF | 20% | 50V | CN103 | * 1-564-506-11 | PLUG, CONNECTOR 3P | | | |
| C349 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | CN104 | * 1-564-505-11 | PLUG, CONNECTOR 2P | | | |
| C350 | 1-124-122-11 | ELECT | 100uF | 20% | 50V | CN201 | * 1-564-505-11 | PLUG, CONNECTOR 2P | | | |
| C351 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | CN202 | * 1-564-505-11 | PLUG, CONNECTOR 2P | | | |
| C352 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | CN203 | * 1-564-506-11 | PLUG, CONNECTOR 3P | | | |
| C353 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | CN204 | * 1-564-505-11 | PLUG, CONNECTOR 2P | | | |

AUDIO

| Ref. No. | Part No. | Description | Remark |
|----------|----------------|--------------------------------|--------|
| CN351 | * 1-564-709-11 | PIN, CONNECTOR (SMALL TYPE) 7P | |
| CN352 | * 1-564-706-11 | PIN, CONNECTOR (SMALL TYPE) 4P | |

< DIODE >

| | | | |
|------|--------------|-----------------|--|
| D101 | 8-719-107-94 | DIODE 1SS202-1 | |
| D102 | 8-719-107-94 | DIODE 1SS202-1 | |
| D201 | 8-719-107-94 | DIODE 1SS202-1 | |
| D202 | 8-719-107-94 | DIODE 1SS202-1 | |
| D325 | 8-719-902-87 | DIODE EQB01-08Q | |
| D326 | 8-719-902-87 | DIODE EQB01-08Q | |
| D349 | 8-719-200-77 | DIODE 10E2N | |
| D350 | 8-719-114-30 | DIODE RD5.1JSB2 | |
| D351 | 8-719-901-59 | DIODE KV1320 | |
| D352 | 8-719-903-27 | DIODE 1SS168 | |
| D353 | 8-719-107-94 | DIODE 1SS202-1 | |
| D354 | 8-719-107-94 | DIODE 1SS202-1 | |
| D355 | 8-719-107-94 | DIODE 1SS202-1 | |
| D356 | 8-719-107-94 | DIODE 1SS202-1 | |
| D357 | 8-719-200-82 | DIODE 11ES2 | |
| D358 | 8-719-200-82 | DIODE 11ES2 | |
| D359 | 8-719-107-94 | DIODE 1SS202-1 | |

< IC >

| | | | |
|-------|--------------|---------------------|--|
| IC101 | 8-759-602-83 | IC M5238P | |
| IC102 | 8-759-504-50 | IC LF412CN/SL161841 | |
| IC151 | 8-759-900-72 | IC NE5532P | |
| IC152 | 8-759-900-72 | IC NE5532P | |
| IC153 | 8-759-981-98 | IC RC4560DD | |
| IC201 | 8-759-602-83 | IC M5238P | |
| IC202 | 8-759-504-50 | IC LF412CN/SL161841 | |
| IC251 | 8-759-900-72 | IC NE5532P | |
| IC252 | 8-759-900-72 | IC NE5532P | |
| IC253 | 8-759-981-98 | IC RC4560DD | |
| IC301 | 8-759-231-53 | IC TA7805S | |
| IC302 | 8-759-604-47 | IC M5F7905L | |
| IC303 | 8-759-231-53 | IC TA7805S | |
| IC304 | 8-759-999-09 | IC CS5326-KP | |
| IC305 | 8-759-916-55 | IC SN74HC175AN | |
| IC348 | 8-752-335-51 | IC CXD2552Q-1 | |
| IC349 | 8-752-335-51 | IC CXD2552Q-1 | |
| IC350 | 8-759-999-32 | IC SM5813APT | |
| IC351 | 8-759-917-18 | IC SN74HCU04AN | |
| IC354 | 8-759-900-72 | IC NE5532P | |
| IC355 | 8-759-634-55 | IC M5F7805L-720 | |
| IC356 | 8-759-604-30 | IC M5F7808L | |
| IC357 | 8-759-917-11 | IC SN74HC933AN | |
| IC358 | 8-759-250-81 | IC TC5081AP | |
| IC359 | 8-759-233-64 | IC TC74HCU04AF | |
| IC360 | 8-759-239-47 | IC TC74HC123AP | |
| IC361 | 8-759-916-29 | IC SN74HC74N | |

| Ref. No. | Part No. | Description | Remark |
|----------|----------|-------------|--------|
|----------|----------|-------------|--------|

< COIL >

| | | | |
|------|--------------|------------------|--|
| L351 | 1-410-324-11 | INDUCTOR 4.7uH | |
| L352 | 1-460-042-11 | COIL (WITH CORE) | |
| L353 | 1-460-042-11 | COIL (WITH CORE) | |
| L355 | 1-410-324-11 | INDUCTOR 4.7uH | |

< TRANSISTOR >

| | | | |
|------|--------------|-----------------------|--|
| Q325 | 8-729-204-90 | TRANSISTOR 2SK246-GR1 | |
| Q326 | 8-729-204-90 | TRANSISTOR 2SK246-GR1 | |
| Q327 | 8-729-803-82 | TRANSISTOR 2SC3468-E | |
| Q328 | 8-729-803-76 | TRANSISTOR 2SA1371-E | |
| Q329 | 8-729-127-53 | TRANSISTOR 2SC2275-P | |

| | | | |
|------|--------------|----------------------|--|
| Q330 | 8-729-190-53 | TRANSISTOR 2SA985A-P | |
| Q331 | 8-729-803-76 | TRANSISTOR 2SA1371-E | |
| Q332 | 8-729-803-82 | TRANSISTOR 2SC3468-E | |
| Q333 | 8-729-803-82 | TRANSISTOR 2SC3468-E | |
| Q334 | 8-729-803-76 | TRANSISTOR 2SA1371-E | |

| | | | |
|------|--------------|----------------------|--|
| Q350 | 8-729-127-53 | TRANSISTOR 2SC2275-P | |
| Q351 | 8-729-900-61 | TRANSISTOR DTA114ES | |
| Q352 | 8-729-200-56 | TRANSISTOR 2SK241-GR | |
| Q353 | 8-729-200-56 | TRANSISTOR 2SK241-GR | |
| Q354 | 8-729-900-61 | TRANSISTOR DTA114ES | |

| | | | |
|------|--------------|---------------------|--|
| Q355 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| Q356 | 8-729-900-61 | TRANSISTOR DTA114ES | |
| Q357 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| Q358 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| Q359 | 8-729-900-61 | TRANSISTOR DTA114ES | |

< RESISTOR >

| | | | | | |
|------|--------------|--------|------|----|------|
| R103 | 1-246-545-00 | CARBON | 1.0M | 5% | 1/4W |
| R104 | 1-247-717-11 | CARBON | 2.2K | 5% | 1/4W |
| R105 | 1-249-462-11 | CARBON | 22K | 5% | 1/4W |
| R106 | 1-249-469-11 | CARBON | 100K | 5% | 1/4W |
| R107 | 1-249-520-11 | CARBON | 47 | 5% | 1/4W |

| | | | | | |
|------|--------------|--------|------|----|------|
| R108 | 1-249-512-11 | CARBON | 22 | 5% | 1/4W |
| R109 | 1-249-524-11 | CARBON | 68 | 5% | 1/4W |
| R150 | 1-249-946-11 | CARBON | 9.1K | 1% | 1/4W |
| R151 | 1-249-946-11 | CARBON | 9.1K | 1% | 1/4W |
| R152 | 1-249-946-11 | CARBON | 9.1K | 1% | 1/4W |

| | | | | | |
|------|--------------|--------|------|----|------|
| R153 | 1-249-946-11 | CARBON | 9.1K | 1% | 1/4W |
| R154 | 1-247-721-11 | CARBON | 4.7K | 5% | 1/4W |
| R155 | 1-247-721-11 | CARBON | 4.7K | 5% | 1/4W |
| R156 | 1-247-721-11 | CARBON | 4.7K | 5% | 1/4W |
| R157 | 1-247-721-11 | CARBON | 4.7K | 5% | 1/4W |

| | | | | | |
|------|--------------|--------|------|----|------|
| R158 | 1-249-948-11 | CARBON | 11K | 1% | 1/4W |
| R159 | 1-249-948-11 | CARBON | 11K | 1% | 1/4W |
| R160 | 1-249-941-11 | CARBON | 5.6K | 1% | 1/4W |
| R161 | 1-249-932-11 | CARBON | 2.4K | 1% | 1/4W |
| R162 | 1-246-545-00 | CARBON | 1.0M | 5% | 1/4W |

AUDIO

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|-------------|---------------|----------|----------------|-------------|---------------|
| R163 | 1-249-941-11 | CARBON | 5. 6K 1% 1/4W | R303 | 1-249-504-11 | CARBON | 10 5% 1/4W |
| R164 | 1-249-941-11 | CARBON | 5. 6K 1% 1/4W | R325 | 1-247-706-11 | CARBON | 330 5% 1/4W |
| R165 | 1-249-941-11 | CARBON | 5. 6K 1% 1/4W | R326 | 1-247-706-11 | CARBON | 330 5% 1/4W |
| R166 | 1-249-932-11 | CARBON | 2. 4K 1% 1/4W | R327 | 1-247-710-11 | CARBON | 560 5% 1/4W |
| R167 | 1-246-545-00 | CARBON | 1. 0M 5% 1/4W | R328 | 1-247-710-11 | CARBON | 560 5% 1/4W |
| R168 | 1-249-556-11 | CARBON | 1. 5K 5% 1/4W | R329 | 1-249-466-11 | CARBON | 56K 5% 1/4W |
| R169 | 1-249-556-11 | CARBON | 1. 5K 5% 1/4W | R330 | 1-249-466-11 | CARBON | 56K 5% 1/4W |
| R170 | 1-249-469-11 | CARBON | 100K 5% 1/4W | R331 | 1-247-719-11 | CARBON | 3. 3K 5% 1/4W |
| R171 | 1-249-529-11 | CARBON | 110 5% 1/4W | R332 | 1-247-719-11 | CARBON | 3. 3K 5% 1/4W |
| R172 | 1-249-529-11 | CARBON | 110 5% 1/4W | R333 | 1-249-798-11 | CARBON | 680 5% 1/2W |
| R173 | 1-247-721-11 | CARBON | 4. 7K 5% 1/4W | R334 | 1-249-798-11 | CARBON | 680 5% 1/2W |
| R174 | 1-249-462-11 | CARBON | 22K 5% 1/4W | R335 | 1-247-751-11 | CARBON | 820 5% 1/2W |
| R175 | 1-247-700-11 | CARBON | 100 5% 1/4W | R336 | 1-247-751-11 | CARBON | 820 5% 1/2W |
| R177 | 1-249-497-11 | CARBON | 33K 5% 1/4W | R353 | 1-247-716-11 | CARBON | 1. 8K 5% 1/4W |
| R203 | 1-246-545-00 | CARBON | 1. 0M 5% 1/4W | R354 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R204 | 1-247-717-11 | CARBON | 2. 2K 5% 1/4W | R355 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R205 | 1-249-462-11 | CARBON | 22K 5% 1/4W | R356 | 1-249-423-11 | CARBON | 3. 3K 5% 1/4W |
| R206 | 1-249-469-11 | CARBON | 100K 5% 1/4W | R357 | 1-249-423-11 | CARBON | 3. 3K 5% 1/4W |
| R207 | 1-249-520-11 | CARBON | 47 5% 1/4W | R358 | 1-249-433-11 | CARBON | 22K 5% 1/4W |
| R208 | 1-249-512-11 | CARBON | 22 5% 1/4W | R359 | 1-249-435-11 | CARBON | 33K 5% 1/4W |
| R209 | 1-249-524-11 | CARBON | 68 5% 1/4W | R360 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R250 | 1-249-946-11 | CARBON | 9. 1K 1% 1/4W | R361 | 1-247-903-00 | CARBON | 1M 5% 1/4W |
| R251 | 1-249-946-11 | CARBON | 9. 1K 1% 1/4W | R362 | 1-247-903-00 | CARBON | 1M 5% 1/4W |
| R252 | 1-249-946-11 | CARBON | 9. 1K 1% 1/4W | R363 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R253 | 1-249-946-11 | CARBON | 9. 1K 1% 1/4W | R364 | 1-249-428-11 | CARBON | 8. 2K 5% 1/4W |
| R254 | 1-247-721-11 | CARBON | 4. 7K 5% 1/4W | R365 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| R255 | 1-247-721-11 | CARBON | 4. 7K 5% 1/4W | R366 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R256 | 1-247-721-11 | CARBON | 4. 7K 5% 1/4W | R367 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R257 | 1-247-721-11 | CARBON | 4. 7K 5% 1/4W | R368 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R258 | 1-249-948-11 | CARBON | 11K 1% 1/4W | R369 | 1-247-903-00 | CARBON | 1M 5% 1/4W |
| R259 | 1-249-948-11 | CARBON | 11K 1% 1/4W | R370 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R260 | 1-249-941-11 | CARBON | 5. 6K 1% 1/4W | R371 | △ 1-212-857-00 | FUSIBLE | 10 5% 1/4W F |
| R261 | 1-249-932-11 | CARBON | 2. 4K 1% 1/4W | R372 | △ 1-212-857-00 | FUSIBLE | 10 5% 1/4W F |
| R262 | 1-246-545-00 | CARBON | 1. 0M 5% 1/4W | R373 | 1-249-416-11 | CARBON | 820 5% 1/4W |
| R263 | 1-249-941-11 | CARBON | 5. 6K 1% 1/4W | R374 | 1-249-416-11 | CARBON | 820 5% 1/4W |
| R264 | 1-249-941-11 | CARBON | 5. 6K 1% 1/4W | R375 | 1-249-416-11 | CARBON | 820 5% 1/4W |
| R265 | 1-249-941-11 | CARBON | 5. 6K 1% 1/4W | R376 | 1-249-413-11 | CARBON | 470 5% 1/4W |
| R266 | 1-249-932-11 | CARBON | 2. 4K 1% 1/4W | R377 | 1-249-413-11 | CARBON | 470 5% 1/4W |
| R267 | 1-246-545-00 | CARBON | 1. 0M 5% 1/4W | R378 | 1-249-413-11 | CARBON | 470 5% 1/4W |
| R268 | 1-249-556-11 | CARBON | 1. 5K 5% 1/4W | R379 | 1-249-413-11 | CARBON | 470 5% 1/4W |
| R269 | 1-249-556-11 | CARBON | 1. 5K 5% 1/4W | R380 | 1-249-413-11 | CARBON | 470 5% 1/4W |
| R270 | 1-249-469-11 | CARBON | 100K 5% 1/4W | R381 | 1-247-887-00 | CARBON | 220K 5% 1/4W |
| R271 | 1-249-529-11 | CARBON | 110 5% 1/4W | R382 | 1-249-413-11 | CARBON | 470 5% 1/4W |
| R272 | 1-249-529-11 | CARBON | 110 5% 1/4W | R385 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R273 | 1-247-721-11 | CARBON | 4. 7K 5% 1/4W | R386 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| R274 | 1-249-462-11 | CARBON | 22K 5% 1/4W | R387 | 1-249-413-11 | CARBON | 470 5% 1/4W |
| R275 | 1-247-700-11 | CARBON | 100 5% 1/4W | R388 | 1-249-425-11 | CARBON | 4. 7K 5% 1/4W |
| R277 | 1-249-497-11 | CARBON | 33K 5% 1/4W | R389 | 1-249-441-11 | CARBON | 100K 5% 1/4W |
| R301 | 1-249-460-11 | CARBON | 15K 5% 1/4W | R390 | 1-249-407-11 | CARBON | 150 5% 1/4W |
| R302 | 1-247-704-11 | CARBON | 220 5% 1/4W | R391 | 1-249-409-11 | CARBON | 220 5% 1/4W |

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

AUDIO

BATTERY

CONTROL SW

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|---|----------------|--------------------------------|----------------|----------------|--------------|-----------------------------|--------|
| < RELAY > | | | | | | | |
| RY150 | 1-515-727-11 | RELAY | | D702 | 8-719-918-76 | DIODE GL-3PR9 | |
| RY250 | 1-515-727-11 | RELAY | | D705 | 8-719-934-34 | DIODE AA3432S | |
| RY351 | 1-515-727-11 | RELAY | | D706 | 8-719-934-34 | DIODE AA3432S | |
| RY352 | 1-515-772-11 | RELAY | | D707 | 8-719-304-16 | DIODE SEL2510W-D | |
| ***** | | | | D709 | 8-719-934-34 | DIODE AA3432S | |
| * 1-637-626-11 BATTERY BOARD | | | | | | | |
| ***** | | | | D710 | 8-719-934-34 | DIODE AA3432S | |
| ***** | | | | D711 | 8-719-934-34 | DIODE AA3432S | |
| * A-2006-557-A CONTROL SW BOARD, COMPLETE (AEP, UK) | | | | D712 | 8-719-934-34 | DIODE AA3432S | |
| * A-2006-536-A CONTROL SW BOARD, COMPLETE (US) | | | | D713 | 8-719-934-34 | DIODE AA3432S | |
| ***** | | | | D714 | 8-719-934-34 | DIODE AA3432S | |
| 9-911-839-XX CUSHION | | | | | | | |
| * 4-911-676-01 SPACER, LED | | | | D715 | 8-719-934-34 | DIODE AA3432S | |
| < CAPACITOR > | | | | D716 | 8-719-934-34 | DIODE AA3432S | |
| C702 | 1-126-206-11 | ELECT CHIP | 100uF 20% 6.3V | D718 | 8-719-938-75 | DIODE SB05-05CP-TA | |
| C703 | 1-163-038-00 | CERAMIC CHIP | 0.1uF 25V | D719 | 8-719-938-75 | DIODE SB05-05CP-TA | |
| C704 | 1-163-038-00 | CERAMIC CHIP | 0.1uF 25V | D720 | 8-719-938-75 | DIODE SB05-05CP-TA | |
| C705 | 1-163-038-00 | CERAMIC CHIP | 0.1uF 25V | D721 | 8-719-938-75 | DIODE SB05-05CP-TA | |
| C706 | 1-126-206-11 | ELECT CHIP | 100uF 20% 6.3V | < INDICATOR > | | | |
| C708 | 1-163-038-00 | CERAMIC CHIP | 0.1uF 25V | FL701 | 1-519-601-11 | INDICATOR TUBE, FLUORESCENT | |
| C709 | 1-163-038-00 | CERAMIC CHIP | 0.1uF 25V | < IC > | | | |
| C710 | 1-163-109-00 | CERAMIC CHIP | 47PF 5% 50V | IC701 | 8-759-513-16 | IC MSC62408-020GS-K | |
| C711 | 1-163-038-00 | CERAMIC CHIP | 0.1uF 25V | IC702 | 8-752-326-33 | IC CXK1011M | |
| C712 | 1-163-038-00 | CERAMIC CHIP | 0.1uF 25V | IC703 | 8-759-009-05 | IC MC14051BF | |
| C713 | 1-163-038-00 | CERAMIC CHIP | 0.1uF 25V | IC704 | 8-759-009-05 | IC MC14051BF | |
| C714 | 1-163-038-00 | CERAMIC CHIP | 0.1uF 25V | IC705 | 8-759-009-10 | IC MC14069UBF | |
| C715 | 1-126-206-11 | ELECT CHIP | 100uF 20% 6.3V | IC706 | 8-759-502-84 | IC LM393M | |
| C722 | 1-124-779-00 | ELECT CHIP | 10uF 20% 16V | IC707 | 8-759-630-70 | IC M50782FP | |
| C723 | 1-163-038-00 | CERAMIC CHIP | 0.1uF 25V | IC708 | 8-752-323-64 | IC CXK5816M-12L | |
| C724 | 1-163-099-00 | CERAMIC CHIP | 18PF 5% 50V | IC709 | 8-759-500-05 | IC MSM6338MS-K | |
| C725 | 1-163-227-11 | CERAMIC CHIP | 10PF 5% 50V | IC712 | 8-759-504-23 | IC RF5C62 | |
| C726 | 1-163-038-00 | CERAMIC CHIP | 0.1uF 25V | < TRANSISTOR > | | | |
| < CONNECTOR > | | | | Q701 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| CN772 | * 1-564-720-11 | PIN, CONNECTOR (SMALL TYPE) 4P | | Q702 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| CN773 | * 1-564-339-00 | PIN, CONNECTOR 5P | | Q705 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| < TRIMMER > | | | | Q706 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| CT701 | 1-141-334-11 | CAP, VAR, TRIMMER | | Q707 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| < DIODE > | | | | Q709 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| D701 | 8-719-304-16 | DIODE SEL2510W-D | | Q710 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| | | | | Q711 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| | | | | Q712 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| | | | | Q713 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| | | | | Q714 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| | | | | Q715 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| | | | | Q716 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| | | | | Q717 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| | | | | Q718 | 8-729-807-16 | TRANSISTOR 2SD1621-R | |
| | | | | Q719 | 8-729-900-98 | TRANSISTOR DTC143TK | |
| | | | | Q720 | 8-729-900-98 | TRANSISTOR DTC143TK | |
| | | | | Q721 | 8-729-900-98 | TRANSISTOR DTC143TK | |

CONTROL SW

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|--------------|--------------|--------------------------|--------|----------|--------------|------------------------------------|--------|
| Q722 | 8-729-900-98 | TRANSISTOR DTC143TK | | R742 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | |
| Q723 | 8-729-900-98 | TRANSISTOR DTC143TK | | R743 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| Q724 | 8-729-900-98 | TRANSISTOR DTC143TK | | R744 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | |
| Q725 | 8-729-900-98 | TRANSISTOR DTC143TK | | R745 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| Q726 | 8-729-900-98 | TRANSISTOR DTC143TK | | R746 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | |
| Q727 | 8-729-807-16 | TRANSISTOR 2SD1621-R | | R747 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | |
| Q728 | 8-729-100-66 | TRANSISTOR 2SC1623-L6 | | R749 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | |
| Q730 | 8-729-901-00 | TRANSISTOR DTC124EK | | R750 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| Q732 | 8-729-807-16 | TRANSISTOR 2SD1621-R | | R751 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | |
| (RESISTOR) | | | | R753 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W (AEP, UK) | |
| R701 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | | R754 | 1-216-045-00 | METAL CHIP 680 5% 1/10W (US) | |
| R702 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | | R755 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | |
| R703 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | | R756 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| R704 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | | R757 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | |
| R705 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | | R758 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| R706 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | | R759 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | |
| R707 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | | R760 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| R708 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | | R761 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R709 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | | R762 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R710 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | | R765 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R711 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | | R766 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R712 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | | R767 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R713 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | | R769 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R714 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | | R770 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R715 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | | R771 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R716 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | | R772 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R717 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | | R773 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R718 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | | R774 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R719 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | | R775 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R720 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | | R776 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R721 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | | R777 | 1-216-682-11 | METAL CHIP 20K 0.5% 1/10W | |
| R722 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | | R778 | 1-216-682-11 | METAL CHIP 20K 0.5% 1/10W | |
| R723 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | | R779 | 1-216-682-11 | METAL CHIP 20K 0.5% 1/10W | |
| R724 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | | R780 | 1-216-682-11 | METAL CHIP 20K 0.5% 1/10W | |
| R725 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | | R781 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R726 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | | R782 | 1-216-675-11 | METAL CHIP 10K 0.5% 1/10W | |
| R727 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | | R783 | 1-216-675-11 | METAL CHIP 10K 0.5% 1/10W | |
| R728 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | | R784 | 1-216-675-11 | METAL CHIP 10K 0.5% 1/10W | |
| R729 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | | R785 | 1-216-682-11 | METAL CHIP 20K 0.5% 1/10W | |
| R730 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | | R786 | 1-216-682-11 | METAL CHIP 20K 0.5% 1/10W | |
| R731 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | | R787 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R732 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | | R788 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R733 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | | R789 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R734 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | | R790 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R735 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | | R791 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R736 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | | R792 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R737 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | | R793 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R739 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | | R794 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R740 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | | R795 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R741 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | | R796 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |

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| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|---------------|------------------------------------|---------------|---------|--------------|---|--------|
| R797 | 1-216-089-00 | METAL CHIP | 47K 5% 1/10W | S728 | 1-554-596-21 | SWITCH, KEY BOARD (5) | |
| R800 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | S729 | 1-554-596-21 | SWITCH, KEY BOARD (6) | |
| R801 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | S730 | 1-554-596-21 | SWITCH, KEY BOARD (MUSIC SCAN/+) | |
| R802 | 1-216-121-00 | METAL CHIP | 1M 5% 1/10W | S731 | 1-554-596-21 | SWITCH, KEY BOARD (CLEAR) | |
| R803 | 1-216-047-00 | METAL CHIP | 820 5% 1/10W | S732 | 1-554-596-21 | SWITCH, KEY BOARD (7) | |
| R804 | 1-216-047-00 | METAL CHIP | 820 5% 1/10W | S733 | 1-554-596-21 | SWITCH, KEY BOARD (8) | |
| R805 | △1-212-851-00 | FUSIBLE | 5.6 5% 1/4W F | S734 | 1-554-596-21 | SWITCH, KEY BOARD (9) | |
| R806 | △1-212-851-00 | FUSIBLE | 5.6 5% 1/4W F | S735 | 1-554-596-21 | SWITCH, KEY BOARD (0/-) | |
| R809 | 1-216-097-00 | METAL CHIP | 100K 5% 1/10W | S736 | 1-554-596-21 | SWITCH, KEY BOARD (START ID AUTO) | |
| R810 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | S737 | 1-554-596-21 | SWITCH, KEY BOARD (START ID WEITE) | |
| R811 | 1-216-051-00 | METAL CHIP | 1.2K 5% 1/10W | S738 | 1-554-596-21 | SWITCH, KEY BOARD (SKIP ID WRITE) | |
| R813 | 1-216-057-00 | METAL CHIP | 2.2K 5% 1/10W | S739 | 1-554-596-21 | SWITCH, KEY BOARD (END ID WRITE) | |
| R814 | 1-216-097-00 | METAL CHIP | 100K 5% 1/10W | S740 | 1-554-596-21 | SWITCH, KEY BOARD (DISPLAY MODE) | |
| R815 | 1-216-033-00 | METAL CHIP | 220 5% 1/10W | S741 | 1-554-596-21 | SWITCH, KEY BOARD (START ID RENUMBER) | |
| R816 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | S742 | 1-554-596-21 | SWITCH, KEY BOARD (START ID ERASE) | |
| R817 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | S743 | 1-554-596-21 | SWITCH, KEY BOARD (SKIP ID ERASE) | |
| R818 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | S744 | 1-554-596-21 | SWITCH, KEY BOARD (END ID ERASE) | |
| R819 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | | | < CRYSTAL > | |
| R820 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | X701 | 1-567-775-11 | VIBRATOR, CERAMIC (4.19MHZ) | |
| R821 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | X702 | 1-567-098-00 | CRYSTAL (32.8KHZ) | |
| R822 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | | | ***** | |
| R823 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | | | * A-2006-587-A DIGITAL BOARD, COMPLETE | |
| R824 | 1-216-073-00 | METAL CHIP | 10K 5% 1/10W | | | ***** | |
| R827 | 1-216-047-00 | METAL CHIP | 820 5% 1/10W | | | < CONNECTOR > | |
| R829 | 1-216-051-00 | METAL CHIP | 1.2K 5% 1/10W | | | BAT501 * 1-564-336-81 PIN, CONNECTOR 2P | |
| | | < SWITCH > | | | | < CAPACITOR > | |
| S701 | 1-554-596-21 | SWITCH, KEY BOARD (▲ OPEN/CLOSE) | | C502 | 1-126-022-11 | ELECT 47uF 20% 16V | |
| S702 | 1-554-596-21 | SWITCH, KEY BOARD (■) | | C503 | 1-136-153-00 | FILM 0.01uF 5% 50V | |
| S704 | 1-554-596-21 | SWITCH, KEY BOARD (▶) | | C504 | 1-136-158-00 | FILM 0.027uF 5% 50V | |
| S705 | 1-554-596-21 | SWITCH, KEY BOARD (◀◀) | | C505 | 1-130-473-00 | MYLAR 0.0015uF 5% 50V | |
| S706 | 1-554-596-21 | SWITCH, KEY BOARD (▶▶) | | C506 | 1-126-022-11 | ELECT 47uF 20% 10V | |
| S707 | 1-554-596-21 | SWITCH, KEY BOARD (◀◀) | | C507 | 1-136-153-00 | FILM 0.01uF 5% 50V | |
| S708 | 1-554-596-21 | SWITCH, KEY BOARD (▶▶) | | C508 | 1-136-158-00 | FILM 0.027uF 5% 50V | |
| S709 | 1-554-596-21 | SWITCH, KEY BOARD (● REC) | | C509 | 1-130-473-00 | MYLAR 0.0015uF 5% 50V | |
| S710 | 1-554-596-21 | SWITCH, KEY BOARD (PAUSE) | | C510 | 1-126-022-11 | ELECT 47uF 20% 10V | |
| S711 | 1-554-596-21 | SWITCH, KEY BOARD (○ REC MUTE) | | C511 | 1-162-290-31 | CERAMIC 470PF 10% 50V | |
| S712 | 1-554-596-21 | SWITCH, KEY BOARD (COUNTER MODE) | | C512 | 1-130-479-00 | MYLAR 0.0047uF 5% 50V | |
| S713 | 1-554-596-21 | SWITCH, KEY BOARD (COUNTER RESET) | | C513 | 1-126-049-11 | ELECT 22uF 20% 10V | |
| S714 | 1-554-596-21 | SWITCH, KEY BOARD (COUNTER MEMORY) | | C514 | 1-162-290-31 | CERAMIC 470PF 10% 50V | |
| S715 | 1-554-596-21 | SWITCH, KEY BOARD (DATE RECORDED) | | C515 | 1-130-479-00 | MYLAR 0.0047uF 5% 50V | |
| S716 | 1-554-596-21 | SWITCH, KEY BOARD (DATE PRESENT) | | C516 | 1-126-049-11 | ELECT 22uF 20% 10V | |
| S717 | 1-554-596-21 | SWITCH, KEY BOARD (SKIP PLAY) | | C517 | 1-136-153-00 | FILM 0.01uF 5% 50V | |
| S718 | 1-554-596-21 | SWITCH, KEY BOARD (FADER) | | C518 | 1-136-158-00 | FILM 0.027uF 5% 50V | |
| S720 | 1-554-596-21 | SWITCH, KEY BOARD (REPEAT) | | C519 | 1-130-473-00 | MYLAR 0.0015uF 5% 50V | |
| S722 | 1-554-596-21 | SWITCH, KEY BOARD (MARGIN RESET) | | C520 | 1-136-153-00 | FILM 0.01uF 5% 50V | |
| S723 | 1-554-596-21 | SWITCH, KEY BOARD (1) | | C521 | 1-130-473-00 | MYLAR 0.0015uF 5% 50V | |
| S724 | 1-554-596-21 | SWITCH, KEY BOARD (2) | | | | | |
| S725 | 1-554-596-21 | SWITCH, KEY BOARD (3) | | | | | |
| S726 | 1-554-596-21 | SWITCH, KEY BOARD (CLOCK SET) | | | | | |
| S727 | 1-554-596-21 | SWITCH, KEY BOARD (4) | | | | | |

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

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| Ref. No. | Part No. | Description | Remark | | | Ref. No. | Part No. | Description | Remark | | |
|----------|--------------|-------------|----------|-----|-----|----------|--------------|-------------|----------|-----|------|
| C522 | 1-136-158-00 | FILM | 0.027uF | 5% | 50V | C583 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C523 | 1-126-157-11 | ELECT | 10uF | 20% | 16V | C584 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C524 | 1-126-022-11 | ELECT | 47uF | 20% | 16V | C585 | 1-126-022-11 | ELECT | 47uF | 20% | 10V |
| C525 | 1-126-022-11 | ELECT | 47uF | 20% | 16V | C586 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C527 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C587 | 1-126-044-11 | ELECT | 1uF | 20% | 50V |
| C528 | 1-126-049-11 | ELECT | 22uF | 20% | 10V | C589 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C529 | 1-124-994-11 | ELECT | 100uF | 20% | 10V | C590 | 1-126-022-11 | ELECT | 47uF | 20% | 10V |
| C535 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C591 | 1-162-207-31 | CERAMIC | 22PF | 5% | 50V |
| C536 | 1-130-475-00 | MYLAR | 0.0022uF | 5% | 50V | C592 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C537 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V | C593 | 1-126-022-11 | ELECT | 47uF | 20% | 10V |
| C538 | 1-130-475-00 | MYLAR | 0.0022uF | 5% | 50V | C595 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C539 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V | C596 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C540 | 1-126-022-11 | ELECT | 47uF | 20% | 10V | C598 | 1-124-994-11 | ELECT | 100uF | 20% | 10V |
| C542 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C599 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C543 | 1-124-994-11 | ELECT | 100uF | 20% | 10V | C600 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V |
| C545 | 1-126-022-11 | ELECT | 47uF | 20% | 16V | C601 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C546 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C602 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C547 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C604 | 1-126-022-11 | ELECT | 47uF | 20% | 10V |
| C548 | 1-124-994-11 | ELECT | 100uF | 20% | 10V | C605 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C549 | 1-124-994-11 | ELECT | 100uF | 20% | 10V | C606 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C550 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C607 | 1-124-994-11 | ELECT | 100uF | 20% | 10V |
| C551 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C608 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C552 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C609 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V |
| C553 | 1-136-177-00 | FILM | 1uF | 5% | 50V | C610 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V |
| C554 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C611 | 1-136-157-00 | FILM | 0.022uF | 5% | 50V |
| C555 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C612 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C556 | 1-162-211-31 | CERAMIC | 33PF | 5% | 50V | C613 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C557 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V | C614 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V |
| C558 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V | C615 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V |
| C559 | 1-126-157-11 | ELECT | 10uF | 20% | 16V | C616 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V |
| C560 | 1-126-022-11 | ELECT | 47uF | 20% | 10V | C617 | 1-161-377-00 | CERAMIC | 0.0047uF | 30% | 16V |
| C561 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C618 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C562 | 1-162-201-31 | CERAMIC | 12PF | 5% | 50V | C619 | 1-124-994-11 | ELECT | 100uF | 20% | 10V |
| C563 | 1-162-201-31 | CERAMIC | 12PF | 5% | 50V | C620 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C564 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | C622 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C565 | 1-136-177-00 | FILM | 1uF | 5% | 50V | C623 | 1-124-994-11 | ELECT | 100uF | 20% | 10V |
| C566 | 1-124-994-11 | ELECT | 100uF | 20% | 10V | C624 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C567 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C625 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V |
| C569 | 1-162-201-31 | CERAMIC | 12PF | 5% | 50V | C626 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C570 | 1-162-201-31 | CERAMIC | 12PF | 5% | 50V | C627 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C571 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | C628 | 1-136-153-00 | FILM | 0.01uF | 5% | 50V |
| C572 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V | C629 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C573 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V | C630 | 1-124-925-11 | ELECT | 2.2uF | 20% | 100V |
| C574 | 1-162-179-11 | CERAMIC | 0.1uF | | 50V | C631 | 1-136-177-00 | FILM | 1uF | 5% | 50V |
| C576 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C634 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C577 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | C635 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C578 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C636 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C579 | 1-124-994-11 | ELECT | 100uF | 20% | 10V | C637 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C580 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C638 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C582 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | C640 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |

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| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|---------------|----------------|---------------------------------|--------|----------------|----------------|------------------------|--------|
| C641 | 1-162-294-31 | CERAMIC 0.001uF 10% | 50V | IC515 | 8-759-987-16 | IC LM393P | |
| C642 | 1-136-153-00 | FILM 0.01uF 5% | 50V | IC516 | 8-759-239-47 | IC TC74HC123AP | |
| C644 | 1-162-179-11 | CREAMIC 0.1uF | 50V | IC517 | 8-759-144-82 | IC uPC2405HF | |
| < CONNECTOR > | | | | IC519 | 8-759-036-44 | IC MC74AC74N | |
| CN501 | * 1-564-715-11 | PIN, CONNECTOR (SMALL TYPE) 13P | | IC520 | 8-759-916-14 | IC SN74HC04AN | |
| CN502 | * 1-564-710-11 | PIN, CONNECTOR (SMALL TYPE) 8P | | IC521 | 8-759-916-12 | IC SN74HC00AN | |
| CN503 | * 1-564-507-11 | PLUG, CONNECTOR 4P | | IC522 | 8-759-135-80 | IC uPC358C | |
| CN504 | * 1-564-511-11 | PLUG, CONNECTOR 8P | | IC523 | 8-759-917-18 | IC SN74HC04AN | |
| CN505 | * 1-564-506-11 | PLUG, CONNECTOR 3P | | IC525 | 8-759-916-50 | IC SN74HC157AN | |
| CN506 | * 1-564-339-00 | PIN, CONNECTOR 5P | | IC526 | 8-759-916-14 | IC SN74HC04AN | |
| CN507 | * 1-564-714-11 | PIN, CONNECTOR (SMALL TYPE) 12P | | IC527 | 8-759-916-55 | IC SN74HC175AN | |
| CN508 | * 1-564-711-11 | PIN, CONNECTOR (SMALL TYPE) 9P | | IC528 | 8-759-916-14 | IC SN74HC04AN | |
| CN531 | * 1-564-709-11 | PIN, CONNECTOR (SMALL TYPE) 7P | | IC529 | 8-759-906-24 | IC SN74LS624N | |
| CN532 | * 1-564-706-11 | PIN, CONNECTOR (SMALL TYPE) 4P | | IC530 | 8-759-916-50 | IC SN74HC157AN | |
| CN533 | * 1-564-339-61 | PIN, CONNECTOR 5P | | IC531 | 8-759-916-55 | IC SN74HC175AN | |
| CN535 | * 1-564-338-61 | PIN, CONNECTOR 4P | | IC532 | 8-759-916-50 | IC SN74HC157AN | |
| CN537 | * 1-564-337-61 | PIN, CONNECTOR 3P | | IC533 | 8-759-803-70 | IC LC74HC08 | |
| CN551 | * 1-564-514-11 | PLUG, CONNECTOR 11P | | IC534 | 8-759-504-22 | IC TDA1543 | |
| CN552 | * 1-564-514-11 | PLUG, CONNECTOR 11P | | IC535 | 8-759-135-80 | IC uPC358C | |
| CN555 | * 1-564-337-00 | PIN, CONNECTOR 3P | | IC536 | 8-759-135-80 | IC uPC358C | |
| CN571 | * 1-506-503-11 | PIN, CONNECTOR 9P | | < COIL > | | | |
| CN572 | * 1-564-339-61 | PIN, CONNECTOR 5P | | L501 | 1-410-509-11 | INDUCTOR 10uH | |
| CN573 | * 1-564-336-00 | PIN, CONNECTOR 2P | | L502 | 1-410-509-11 | INDUCTOR 10uH | |
| CN574 | * 1-564-509-11 | PLUG, CONNECTOR 6P | | L503 | 1-410-509-11 | INDUCTOR 10uH | |
| CN591 | * 1-564-508-11 | PLUG, CONNECTOR 5P | | L504 | 1-410-509-11 | INDUCTOR 10uH | |
| CN592 | * 1-564-510-11 | PLUG, CONNECTOR 7P | | L505 | 1-410-509-11 | INDUCTOR 10uH | |
| CN593 | * 1-564-339-00 | PIN, CONNECTOR 5P | | L506 | 1-410-509-11 | INDUCTOR 10uH | |
| CN595 | * 1-564-336-61 | PIN, CONNECTOR 2P | | L507 | 1-410-509-11 | INDUCTOR 10uH | |
| CN596 | * 1-564-336-71 | PIN, CONNECTOR 2P | | L508 | 1-410-498-11 | INDUCTOR 1.2uH | |
| < DIODE > | | | | L509 | 1-410-509-11 | INDUCTOR 10uH | |
| D501 | 8-719-109-72 | DIODE RD3.9ES-B2 | | L511 | 1-410-509-11 | INDUCTOR 10uH | |
| D502 | 8-719-109-66 | DIODE RD3.3ES-B2 | | L513 | 1-410-953-11 | INDUCTOR, SMALL TYPE | |
| D505 | 8-719-200-77 | DIODE 10E2N | | L514 | 1-410-509-11 | INDUCTOR 10uH | |
| < IC > | | | | L516 | * 1-410-858-11 | INDUCTOR 0uH | |
| IC501 | 8-752-818-41 | IC CXP80524-020Q | | < TRANSISTOR > | | | |
| IC502 | 8-752-339-43 | IC CXD2601AQ | | Q1 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| IC503 | 8-752-339-43 | IC CXD2601AQ | | Q2 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| IC504 | 8-759-947-57 | IC CXD1136Q | | Q501 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| IC505 | 8-752-030-63 | IC CXA1046M | | Q502 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| IC506 | 8-752-330-68 | IC CXK58257M-12L | | Q503 | 8-729-924-90 | TRANSISTOR 2SB1370-EF | |
| IC507 | 8-752-330-68 | IC CXK58257M-12L | | Q504 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| IC508 | 8-759-135-80 | IC uPC358C | | Q505 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| IC509 | 8-759-135-80 | IC uPC358C | | Q506 | 8-729-924-90 | TRANSISTOR 2SB1370-EF | |
| IC510 | 8-759-135-80 | IC uPC358C | | Q507 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| IC511 | 8-759-135-80 | IC uPC358C | | Q509 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| IC512 | 8-759-916-20 | IC SN74HC14AN | | Q510 | 8-729-801-84 | TRANSISTOR 2SB1013-4 | |
| IC513 | 8-759-633-65 | IC M54641L | | Q511 | 8-729-801-93 | TRANSISTOR 2SD1387-3 | |
| IC514 | 8-759-633-65 | IC M54641L | | Q512 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| | | | | Q514 | 8-729-900-80 | TRANSISTOR DTC114ES | |

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| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|--------------|--------------|------------------------|--------|----------|--------------|---------------------|--------|
| Q515 | 8-729-801-84 | TRANSISTOR 2SB1013-4 | | R529 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| Q516 | 8-729-801-93 | TRANSISTOR 2SD1387-3 | | R530 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| Q517 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | R531 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| Q518 | 8-729-924-90 | TRANSISTOR 2SB1370-EF | | R532 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| Q519 | 8-729-900-80 | TRANSISTOR DTC114ES | | R533 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| Q520 | 8-729-900-80 | TRANSISTOR DTC114ES | | R534 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| Q521 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | | R535 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| Q523 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | | R536 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| Q524 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | | R537 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| Q525 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | R538 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| Q526 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | | R539 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | |
| Q527 | 8-729-900-80 | TRANSISTOR DTC114ES | | R540 | 1-249-407-11 | CARBON 150 5% 1/4W | |
| Q528 | 8-729-900-80 | TRANSISTOR DTC114ES | | R541 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| Q530 | 8-729-900-80 | TRANSISTOR DTC114ES | | R542 | 1-249-482-11 | CARBON 4.7 5% 1/2W | |
| Q531 | 8-729-900-80 | TRANSISTOR DTC114ES | | R543 | 1-249-424-11 | CARBON 3.9K 5% 1/4W | |
| Q532 | 8-729-900-80 | TRANSISTOR DTC114ES | | R549 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| Q533 | 8-729-900-80 | TRANSISTOR DTC114ES | | R550 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| Q534 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | R551 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| Q535 | 8-729-900-80 | TRANSISTOR DTC114ES | | R552 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| (RESISTOR) | | | | R553 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R1 | 1-249-413-11 | CARBON 470 5% 1/4W | | R554 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R2 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R555 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R501 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R556 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R502 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R557 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R503 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R558 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R504 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R559 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R505 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R560 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R506 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R561 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R507 | 1-249-441-11 | CARBON 100K 5% 1/4W | | R562 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R508 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R563 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R509 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R564 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R510 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R565 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R511 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R567 | 1-247-804-11 | CARBON 75 5% 1/4W | |
| R512 | 1-249-405-11 | CARBON 100 5% 1/4W | | R569 | 1-247-804-11 | CARBON 75 5% 1/4W | |
| R513 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R570 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R514 | 1-249-408-11 | CARBON 180 5% 1/4W | | R571 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R515 | 1-249-441-11 | CARBON 100K 5% 1/4W | | R572 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R516 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R573 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R517 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R574 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R518 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R575 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R519 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R576 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R520 | 1-249-405-11 | CARBON 100 5% 1/4W | | R577 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R521 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R578 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R522 | 1-249-408-11 | CARBON 180 5% 1/4W | | R580 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R523 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R581 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R524 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R582 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R525 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R583 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R526 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R584 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R527 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R585 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R528 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R586 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |

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| Ref. No. | Part No. | Description | Remark | | | Ref. No. | Part No. | Description | Remark | | |
|----------|--------------|-------------|--------|----|------|-----------------------|--------------|-----------------------------|--------|----|------|
| R587 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | R643 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W |
| R588 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | R644 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R589 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | R645 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R590 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | R646 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R591 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | R647 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R592 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | R648 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W |
| R594 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | R649 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R595 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W | R650 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R597 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | R651 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R598 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W | R652 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R599 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | R656 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R600 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | R657 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R601 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | R658 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R602 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | R659 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R603 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | R660 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R604 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | R661 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R605 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | R663 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W |
| R606 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | R664 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R609 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | R665 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R610 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | R666 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R611 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | R667 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R612 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | R668 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W |
| R614 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W | R669 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R615 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | R670 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R616 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | R672 | 1-249-407-11 | CARBON | 150 | 5% | 1/4W |
| R617 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | R673 | 1-247-891-00 | CARBON | 330K | 5% | 1/4W |
| R618 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | R674 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R619 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W | R675 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R620 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | R676 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R621 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | R680 | 1-249-410-11 | CARBON | 270 | 5% | 1/4W |
| R622 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W | R681 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R623 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | < VARIABLE RESISTOR > | | | | | |
| R624 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W | RV501 | 1-238-019-11 | RES, ADJ, CARBON 47K | | | |
| R625 | 1-247-899-11 | CARBON | 680K | 5% | 1/4W | RV502 | 1-238-019-11 | RES, ADJ, CARBON 47K | | | |
| R627 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | RV503 | 1-238-016-11 | RES, ADJ, CARBON 10K | | | |
| R628 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | RV504 | 1-238-016-11 | RES, ADJ, CARBON 10K | | | |
| R629 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W | RV505 | 1-238-015-11 | RES, ADJ, CARBON 4.7K | | | |
| R630 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | RV506 | 1-238-015-11 | RES, ADJ, CARBON 4.7K | | | |
| R631 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W | < RELAY > | | | | | |
| R632 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W | RY518 | 1-515-640-11 | RELAY (5V) | | | |
| R633 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | < CRYSTAL > | | | | | |
| R634 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W | X501 | 1-567-816-11 | VIBRATOR, CRYSTAL (18.8MHZ) | | | |
| R635 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W | X502 | 1-567-815-11 | VIBRATOR, CRYSTAL (22.6MHZ) | | | |
| R636 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W | X503 | 1-578-667-11 | VIBRATOR, CRYSTAL (49.1MHZ) | | | |
| R637 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | ***** | | | | | |
| R638 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | | | | | | |
| R639 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | | | | | | |
| R640 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | | | | | | |
| R641 | 1-249-424-11 | CARBON | 3.9K | 5% | 1/4W | | | | | | |
| R642 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W | | | | | | |

DIGITAL I/O (OPT)

DIGITAL IN (COAX)

DIGITAL OUT (COAX)

DIODE

HEADPHONE JACK

HEADPHONE VOL

LINE FILTER

| Ref. No. | Part No. | Description | Remark |
|--|--------------|----------------------------|---------|
| * 1-637-618-11 DIGITAL I/O (OPT) BOARD ***** | | | |
| < CAPACITOR > | | | |
| C677 | 1-162-179-11 | CERAMIC 0.1uF | 50V |
| C678 | 1-126-023-11 | ELECT 100uF | 20% 16V |
| C679 | 1-162-179-11 | CERAMIC 0.1uF | 50V |
| < IC > | | | |
| CP671 | 8-749-921-11 | IC GP1F32R (OPTICAL IN) | |
| CP672 | 8-749-921-12 | IC GP1F32T (OPTICAL OUT) | |
| < COIL > | | | |
| L510 | 1-410-509-11 | INDUCTOR 10uH | |
| L512 | 1-410-509-11 | INDUCTOR 10uH | |
| ***** | | | |
| * 1-637-616-11 DIGITAL IN (COAX) BOARD ***** | | | |
| < CAPACITOR > | | | |
| | 1-126-059-11 | ELECT 10MF | 20% 50V |
| < JACK > | | | |
| J601 | 1-563-079-11 | JACK, PIN 1P (DIGITAL IN) | |
| < RESISTOR > | | | |
| R608 | 1-247-804-11 | CARBON 75 5% 1/4W | |
| ***** | | | |
| * 1-637-617-11 DIGITAL OUT (COAX) BOARD ***** | | | |
| * 4-916-318-01 PLATE, GROUND | | | |
| < CAPACITOR > | | | |
| C182 | 1-162-179-11 | CERAMIC 0.1uF | 50V |
| < JACK > | | | |
| J181 | 1-566-922-21 | JACK, PIN 1P (DIGITAL OUT) | |
| < RESISTOR > | | | |
| R183 | 1-247-804-11 | CARBON 75 5% 1/4W | |
| < COIL > | | | |
| T182 | 1-459-795-11 | COIL (WITH CORE) | |
| ***** | | | |

| Ref. No. | Part No. | Description | Remark |
|---|----------------|--|----------|
| * 1-637-625-11 DIODE BOARD ***** | | | |
| < DIODE > | | | |
| D901 | 8-719-302-38 | DIODE RBV-602-01 | |
| ***** | | | |
| * 1-637-614-11 HEADPHONE JACK BOARD ***** | | | |
| < CAPACITOR > | | | |
| C720 | 1-162-290-31 | CERAMIC 470PF | 10% 50V |
| C721 | 1-162-290-31 | CERAMIC 470PF | 10% 50V |
| < JACK > | | | |
| J721 | 1-565-327-11 | JACK, LARGE TYPE 1P (PHONES) | |
| ***** | | | |
| * 1-637-613-11 HEADPHONE VOL BOARD ***** | | | |
| < VARIABLE RESISTOR > | | | |
| RV302 | 1-238-841-11 | RES, VAR, CARBON 20K/20K (PHONE LEVEL) | |
| ***** | | | |
| * 1-637-621-11 LINE FILTER BOARD ***** | | | |
| * 1-533-213-31 HOLDER, FUSE 4-870-539-00 PLATE, GROUND | | | |
| < CAPACITOR > | | | |
| C941 | △1-161-744-00 | CERAMIC 0.01uF | 400V |
| C942 | △1-161-742-00 | CERAMIC 0.0022uF | 20% 400V |
| C943 | △1-161-742-00 | CERAMIC 0.0022uF | 20% 400V |
| C944 | △1-161-742-00 | CERAMIC 0.0022uF | 20% 400V |
| C945 | △1-161-742-00 | CERAMIC 0.0022uF | 20% 400V |
| C946 | △1-161-744-00 | CERAMIC 0.01uF | 400V |
| < CONNECTOR > | | | |
| CN941 | * 1-564-321-00 | PIN, CONNECTOR 2P | |
| CN942 | * 1-565-395-11 | PIN, CONNECTOR 3P | |
| CN943 | * 1-564-687-11 | PIN, CONNECTOR 3P | |
| CN944 | * 1-564-687-11 | PIN, CONNECTOR 3P | |
| < COIL > | | | |
| T901 | △1-421-915-11 | COIL, LINE FILTER | |

LINE PIN JACK

LOAD-MOT

LOAD-SW

MD

| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|--------------|--------------------|------------------------------|--------|----------------|----------------|----------------------------------|--------|
| ***** | | | | C005 | 1-163-009-11 | CERAMIC CHIP 0.001uF 10% 50V | |
| | * 1-637-620-11 | LINE PIN JACK BOARD | | C006 | 1-124-126-00 | ELECT 47uF 20% 10V | |
| | | ***** | | C007 | 1-124-126-00 | ELECT 47uF 20% 10V | |
| | | < CONNECTOR > | | C021 | 1-124-925-11 | ELECT 2.2uF 20% 100V | |
| CN151 | * 1-564-519-11 | PLUG, CONNECTOR 4P | | C022 | 1-124-126-00 | ELECT 47uF 20% 10V | |
| | | < JACK > | | C031 | 1-124-126-00 | ELECT 47uF 20% 10V | |
| J151 | 1-568-101-11 | JACK, PIN 4P (LINE IN/OUT) | | C032 | 1-124-126-00 | ELECT 47uF 20% 10V | |
| | | < RESISTOR > | | C033 | 1-124-126-00 | ELECT 47uF 20% 10V | |
| R153 | 1-249-657-11 | CARBON 220 5% 1/2W | | < CONNECTOR > | | | |
| R154 | 1-249-657-11 | CARBON 220 5% 1/2W | | CN003 | * 1-564-505-11 | PLUG, CONNECTOR 2P | |
| ***** | | | | CN004 | * 1-564-704-11 | PIN, CONNECTOR (SMALL TYPE) 2P | |
| | * 1-637-601-11 | LOAD-MOT BOARD | | CN005 | * 1-564-515-11 | PLUG, CONNECTOR 12P | |
| | | ***** | | CN006 | * 1-564-710-11 | PIN, CONNECTOR (SMALL TYPE) 8P | |
| | | < CAPACITOR > | | CN007 | * 1-568-369-11 | HOUSING, CONNECTOR (PC BOARD) 8P | |
| C011 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | | CN008 | * 1-564-338-00 | PIN, CONNECTOR 4P | |
| | | < CONNECTOR > | | CN009 | * 1-564-338-61 | PIN, CONNECTOR 4P | |
| CN001 | * 1-564-497-11 | PIN, CONNECTOR 4P | | CN051 | * 1-564-715-11 | PIN, CONNECTOR (SMALL TYPE) 13P | |
| CN002 | * 1-564-496-11 | PIN, CONNECTOR 3P | | CN052 | * 1-564-710-11 | PIN, CONNECTOR (SMALL TYPE) 8P | |
| CN054 | * 1-564-523-11 | PLUG, CONNECTOR 8P | | CN053 | * 1-564-507-11 | PLUG, CONNECTOR 4P | |
| ***** | | | | < DIODE > | | | |
| | * 1-637-606-11 | LOAD-SW BOARD | | D011 | 8-719-104-34 | DIODE 1S2836 | |
| | | ***** | | D012 | 8-719-104-34 | DIODE 1S2836 | |
| | | < SWITCH > | | < IC > | | | |
| S011 | 1-571-489-11 | SWITCH, SLIDE | | IC001 | 8-759-107-68 | IC CX20115A | |
| S012 | 1-571-489-11 | SWITCH, SLIDE | | IC002 | 8-759-502-80 | IC LM358M | |
| ***** | | | | < TRANSISTOR > | | | |
| | * A-2006-382-A | MD BOARD, COMPLETE | | Q001 | 8-729-100-66 | TRANSISTOR 2SC1623L6 | |
| | | ***** | | Q002 | 8-729-101-07 | TRANSISTOR 2SB798-DL | |
| | | < JUMPER > | | Q003 | 8-729-900-53 | TRANSISTOR DTC114EK | |
| 4-352-844-01 | PIN, LEAD, COATING | | | < RESISTOR > | | | |
| JW1-JW41 | 1-216-296-00 | METAL CHIP 0 5% 1/8W | | R001 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| | | < CAPACITOR > | | R002 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| C001 | 1-163-009-11 | CERAMIC CHIP 0.001uF 10% 50V | | R003 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| C002 | 1-163-009-11 | CERAMIC CHIP 0.001uF 10% 50V | | R004 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| C003 | 1-163-009-11 | CERAMIC CHIP 0.001uF 10% 50V | | R005 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| C004 | 1-163-009-11 | CERAMIC CHIP 0.001uF 10% 50V | | R006 | 1-216-058-00 | METAL GLAZE 2.4K 5% 1/10W | |
| | | | | R007 | 1-216-029-00 | METAL CHIP 150 5% 1/10W | |
| | | | | R008 | 1-216-059-00 | METAL CHIP 2.7K 5% 1/10W | |
| | | | | R009 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| | | | | R010 | 1-216-084-00 | METAL GLAZE 30K 5% 1/10W | |
| | | | | R011 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| | | | | R012 | 1-216-075-00 | METAL CHIP 12K 5% 1/10W | |
| | | | | R013 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| | | | | R014 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| | | | | R015 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| | | | | R022 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

MD

MOTOR

T-END

OPTICAL RECEIVE

POWER

| Ref.No. | Part No. | Description | Remark |
|---------|--------------|--------------------------|--------|
| R023 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R024 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R025 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R031 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R032 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R033 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | |
| R034 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | |
| R035 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| R036 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| R037 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R038 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |

* 1-633-726-11 MOTOR BOARD

< CAPACITOR >

C01 1-162-851-11 CERAMIC 0.1MF 16V

< CONNECTOR >

CN01 * 1-564-336-00 PIN, CONNECTOR 2P
CN02 * 1-564-336-61 PIN, CONNECTOR 2P
CN03 * 1-564-498-11 PIN, CONNECTOR 5P

* 1-637-603-11 T-END BOARD

< TRANSISTOR >

Q011 1-808-957-11 TRANSISTOR PHOTO SENSOR

* 1-637-609-11 OPTICAL RECEIVE BOARD

< CAPACITOR >

C718 1-124-779-00 ELECT CHIP 10uF 20% 16V

< IC >

IC711 8-749-920-59 IC A1QH3020S

* A-2006-344-A POWER BOARD, COMPLETE

* 1-533-213-31 HOLDER, FUSE
* 1-568-130-11 BAR, BUS 3P

| Ref.No. | Part No. | Description | Remark |
|---------|--------------|----------------------|--------|
| | | < CAPACITOR > | |
| C901 | 1-126-016-11 | ELECT 4700uF 20% 16V | |
| C902 | 1-126-016-11 | ELECT 4700uF 20% 16V | |
| C903 | 1-124-999-11 | ELECT 2200uF 20% 10V | |
| C904 | 1-124-994-11 | ELECT 100uF 20% 10V | |
| C905 | 1-124-473-11 | ELECT 1000uF 20% 10V | |
| C906 | 1-124-473-11 | ELECT 1000uF 20% 10V | |
| C907 | 1-126-059-11 | ELECT 10uF 20% 50V | |
| C908 | 1-126-016-11 | ELECT 4700uF 20% 16V | |
| C909 | 1-126-016-11 | ELECT 4700uF 20% 16V | |
| C910 | 1-124-473-11 | ELECT 1000uF 20% 10V | |

C911 1-126-066-11 ELECT 470uF 20% 63V
C912 1-126-052-11 ELECT 100uF 20% 50V
C913 1-126-052-11 ELECT 100uF 20% 50V
C914 1-136-165-00 FILM 0.1uF 5% 50V
C915 1-136-165-00 FILM 0.1uF 5% 50V

C991 1-126-129-11 ELECT 6800uF 20% 35V
C992 1-126-129-11 ELECT 6800uF 20% 35V
C993 1-136-165-00 FILM 0.1uF 5% 50V
C994 1-136-177-00 FILM 1uF 5% 50V
C995 1-136-165-00 FILM 0.1uF 5% 50V
C996 1-136-177-00 FILM 1uF 5% 50V

< CONNECTOR >

CN901 * 1-564-506-11 PLUG, CONNECTOR 3P
CN902 * 1-564-506-11 PLUG, CONNECTOR 3P
CN903 * 1-564-506-11 PLUG, CONNECTOR 3P
CN904 * 1-564-507-11 PLUG, CONNECTOR 4P
CN991 * 1-560-061-00 PIN, CONNECTOR 3P

CN992 * 1-560-062-00 PIN, CONNECTOR 4P
CN993 * 1-560-063-00 PIN, CONNECTOR 5P
CN994 * 1-560-061-00 PIN, CONNECTOR 3P

< DIODE >

D903 8-719-200-77 DIODE 10E2N
D904 8-719-200-77 DIODE 10E2N
D905 8-719-107-94 DIODE 1SS202-1
D906 8-719-107-94 DIODE 1SS202-1
D907 8-719-107-94 DIODE 1SS202-1

D908 8-719-230-02 DIODE 30DF2
D909 8-719-230-02 DIODE 30DF2
D910 8-719-200-77 DIODE 10E2N
D991 8-719-210-30 DIODE F10P20F(R)
D992 8-719-210-38 DIODE F10P20FR

< RESISTOR >

FR901 A1-219-137-11 FUSIBLE 0.33 10% 1/4W
FR902 A1-212-849-00 FUSIBLE 4.7 5% 1/4W F
FR904 A1-212-865-00 FUSIBLE 22 5% 1/4W F
FR905 A1-212-865-00 FUSIBLE 22 5% 1/4W F

T-SW

TRANSISTOR (A)

TRANSISTOR (B)

TRANSISTOR (C)

| Ref. No. | Part No. | Description | Remark |
|----------|----------------|--|--------|
| | * 1-637-605-11 | T-SW BOARD ***** (SWITCH) | |
| S015 | 1-572-459-11 | SWITCH, PUSH | |
| ***** | | | |
| | * 1-637-622-11 | TRANSISTOR (A) BOARD ***** (CAPACITOR) | |
| C931 | 9-831-246-50 | WIRE KIT 1uF 10% 50V | |
| | | (TRANSISTOR) | |
| Q931 | 8-729-111-55 | TRANSISTOR 2SD1312-K | |
| ***** | | | |
| | * 1-637-623-11 | TRANSISTOR (B) BOARD ***** (CAPACITOR) | |
| C932 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C933 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| | | (IC) | |
| IC901 | 8-759-148-79 | IC uPC2406HF | |
| ***** | | | |
| | * 1-637-624-11 | TRANSISTOR (C) BOARD ***** (CAPACITOR) | |
| C934 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C935 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| | | (IC) | |
| IC902 | 8-759-144-82 | IC uPC2405HF | |
| ***** | | | |
| | | MISCELLANEOUS ***** | |
| 111 | △1-559-479-11 | CORD, POWER (US) | |
| | △1-575-912-11 | CORD, POWER (AEP) | |
| | △1-575-913-11 | CORD, POWER (UK) | |
| BATT01 | 1-528-229-11 | BATTERY, LITHIUMCR-2450 | |
| FH901 | 1-532-745-11 | FUSE, GLASS TUBE (3.15A 125V) (US) | |
| | △1-532-237-00 | FUSE, TIME-LAG (T3.15A 250V) (AEP, UK) | |

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

| Ref. No. | Part No. | Description | Remark |
|---------------------------------------|----------------|---|--------|
| FH902 | △1-532-203-00 | FUSE, TIME-LAG (T2A 250V) (AEP, UK) | |
| | △1-532-743-11 | FUSE, GLASS TUBE (2A, 125V) (US) | |
| FH903 | △1-532-203-00 | FUSE, TIME-LAG (T2A 125V) (AEP, UK) | |
| | △1-532-743-11 | FUSE, GLASS TUBE (2A, 250V) (US) | |
| FH941 | △1-532-743-11 | FUSE, GLASS TUBE (2A, 125V) (US) | |
| | △1-532-203-00 | FUSE, TIME-LAG (T2A 250V) (AEP, UK) | |
| M902 | 8-835-306-01 | MOTOR, DC U-17A | |
| M905 | * 8-835-205-01 | MOTOR, DC U-2A | |
| MOTO11 | A-2003-660-A | MOTOR ASSY | |
| MOTO12 | A-2003-448-A | MOTOR ASSY | |
| PL701 | 1-518-664-11 | LAMP, PILOT | |
| PL702 | 1-518-664-11 | LAMP, PILOT | |
| PM002 | 1-454-522-11 | SOLENOID, PLUNGER | |
| PT901 | △1-450-450-11 | TRANSFORMER, POWER (D) (US) | |
| | △1-450-603-11 | TRANSFORMER, POWER (AEP, UK) | |
| PT902 | △1-450-449-11 | TRANSFORMER, POWER (A) (US) | |
| | △1-450-604-11 | TRANSFORMER, POWER (A) (AEP, UK) | |
| S901 | △1-554-920-11 | SWITCH, PUSH (AC POWER) (1 KEY) | |
| ***** | | | |
| ACCESSORY & PACKING MATERIAL ***** | | | |
| | 1-465-642-11 | REMOTE COMMANDER (RM-D77A)... (BLACK) | |
| | 1-465-823-11 | REMOTE COMMANDER (RM-D77A/D)... (GOLD) | |
| | 1-590-861-11 | CORD, CONNECTION | |
| | * 3-369-153-01 | INDIVIDUAL CARTON (87ES) | |
| | * 3-370-205-01 | INDIVIDUAL CARTON (77ES) | |
| | 3-703-450-01 | INSTRUCTION (87ES) | |
| | 3-704-366-01 | SCREW (CASE) (M3X8) (BLACK) (US, AEP) | |
| | 3-704-366-11 | SCREW (CASE) (M3X8) (GOLD) | |
| | 3-707-584-01 | COVER, BATTERY (for RM-D77A, RM-D77A/D) | |
| | 3-752-666-11 | MANUAL, INSTRUCTION (AEP, UK) (ENGLISH, FRENCH, SPANISH, PORTUGUESE) | |
| | 3-752-666-21 | MANUAL, INSTRUCTION (US) (ENGLISH) | |
| | 3-752-666-41 | MANUAL, INSTRUCTION (AEP) (GERMAN, DUTCH, SWEDISH, ITALIAN) | |
| | * 4-936-624-01 | CUSHION | |
| ***** | | | |
| HARDWARE LIST | | | |
| #2 | 7-682-548-09 | SCREW +BVTT 3X8 (S) | |
| #3 | 7-685-534-19 | SCREW +BTP 2.6X8 TYPE2 N-S | |
| #4 | 7-621-773-86 | SCREW +B 2.6X4 | |
| #5 | 7-682-560-04 | SCREW +BVTT 4X6 (S) | |
| #6 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 N-S | |
| #7 | 7-682-548-04 | SCREW, TIGHT, S | |
| #8 | 7-621-771-06 | SCREW, LOCK | |
| #9 | 7-682-147-15 | SCREW, TR | |
| #10 | 7-621-772-10 | SCREW +B 2X4 | |
| #11 | 7-688-001-01 | W 2, SMALL | |

| <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u> | <u>Remark</u> |
|-----------------|-----------------|---------------------------|---------------|
| #12 | 7-682-545-09 | SCREW +B 3X4 | |
| #13 | 7-621-772-00 | SCREW +B 2X3 | |
| #14 | 7-688-001-12 | W 2, MIDDLE | |
| #15 | 7-621-775-08 | SCREW +B 2.6X3 | |
| #16 | 7-621-255-45 | SCREW +P 2X6 | |
| | | | |
| #17 | 7-627-852-28 | +P 1.7X3 | |
| #18 | 7-621-772-08 | SCREW +B 2X3 | |
| #19 | 7-628-253-00 | SCREW +PS 2X4 | |
| #20 | 7-627-553-27 | SCREW, PRECISION +P 2X2.5 | |
| #21 | 7-627-553-67 | SCREW, PRECISION +P 2X5 | |
| | | | |
| #22 | 7-621-772-20 | SCREW +B 2X5 | |
| #23 | 7-627-450-78 | SCREW, PRECISION +K 1.7X4 | |
| #24 | 7-627-552-47 | SCREW, PRECISION +P 1.7X4 | |
| #25 | 7-621-759-35 | +PSW, 2.6X5 | |

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.